PESTICIDENOTES

A PUBLICATION OF THE WASHINGTON STATE DEPARTMENT OF AGRICULTURE PESTICIDE MANAGEMENT DIVISION

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Worker safety is everyone's job

THINK SAFETY WORK SAFELY

*by **Valoria Loveland**, Director*
Washington State Department of Agriculture

Welcome to the 2005 edition of PesticideNOTES. This newsletter contains a wealth of information that I am certain will be of interest to pesticide applicators, consultants and dealers.

Again, this year, a key focus of this newsletter is worker safety. Washington is a unique state in terms of the work being done to protect all applicators from pesticide exposure. We are quickly becoming recognized as a leader for our efforts to protect agricultural employees.

Washington growers who use certain organophosphate and carbamate pesticides are in their second year of monitoring the cholinesterase levels of their employees who handle these pesticides. John Furman, state Department of Labor & Industries, addresses the results of the monitoring program's first year and discusses changes in place for 2005 (see below). Barbara Morrissey, state Department of Health, offers practical advice on properly using personal protective equipment (PPE) to avoid some of the problems observed in the first year of monitoring (see page 3). And, while protective gear is critical in safeguarding agricultural employees, the dangers of heat stroke cannot be overlooked. Karen Lewis, Grant-Adams counties Extension Agent, details the symptoms of heat stroke and how to protect employees from this dangerous condition (see page 2).

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Photo: Peggy Steward, Capital Press

WSDA Director Valoria Loveland (front left) is briefed on orchard management practices in Eastern Washington.

Cholinesterase monitoring: 2005 update

*by **John Furman**, PhD*
Department of Labor & Industries

Washington's first year of cholinesterase monitoring proved successful, largely due to the three-way partnership between state government, medical providers, and the agriculture industry.

In 2004, approximately 2,600 workers across the state took a pre-exposure (baseline) cholinesterase test. Of that number and during the same season, 580 workers had a least one follow up test after handling organophosphate or carbamate cholinesterase-inhibiting pesticides (see box, page 8).

Of the 580 workers, 119 or 20.5 percent experienced

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WORKER PROTECTION STANDARD

Growers, nurseries and pesticide handlers need better compliance record

Though the Worker Protection Standard (WPS) rule has been in place for a decade, individuals continue to demonstrate confusion and non-compliance with the rule, according to a WSDA review of inspections conducted in 2004.

Any WPS violation – no matter how big or small – is a violation of the pesticide label. The inspection results showed that approximately 80 percent of individuals inspected were out of compliance with application display information as is required at the central notification area. This information, easily displayed on

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EPA recently issued a revised Enclosed Cab Guidance for PPE/Respiratory Protection. The agency also finalized amendments to WPS allowing workers the option of using separable glove liners beneath chemical-resistant gloves; it also makes it optional for agricultural pilots to wear gloves when entering or leaving aircraft.

Both are posted on the Web site at agr.wa.gov/PestFert/Pesticides/WorkerProtection.htm

THINK SAFETY WORK SAFELY

Understanding and avoiding heat stress

*by **Karen Lewis**,*
WSU Grant-Adams Extension

Entering into the hot summer months, we need to recognize that heat stress is a potential problem for everyone involved in production agriculture. For our bodies to function normally, core body temperatures must be maintained within a narrow range of normal – regardless of workload or weather conditions.

At greatest risk are those individuals who work in high temperature and high sunlight conditions while wearing personal protective equipment (PPE). PPE can restrict the evaporation of sweat – which, in turn, inhibits the body's natural cooling system from keeping the body cool. The result is a buildup of body heat and increased body temperature. Heat stress occurs when the body cannot effectively cope with the increased heat. When the body becomes overheated, less blood goes to the active muscles, the brain, and other internal organs. Affected individuals will become weak, tire easier, and may be less alert and less able to use good judgment – basically, they lose the ability to do their jobs well and safely. Heat-related disorders might be an underlying cause for some on-farm accidents and injuries. Age, physical fitness, health status, medications, pregnancy and acclimation to the heat will also affect a person's risk level.

The Worker Protection Standard (WPS) requires that handlers and early entry workers know how to prevent, recognize and give correct first aid for heat illness. Employers are required to take any necessary steps to prevent heat illness among workers wearing protective gear.

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Failure to plan is a plan to fail

*by **Jeff Lutz**, Safety Director,*
Washington Farm Bureau

"A failure to plan is a plan to fail." It is a familiar adage; and, in the ag industry one that quite often is true.

An owner of an agricultural business – no matter what type – should have a plan in place for most aspects of an operation. Written documentation of plans, policies and procedures are not only a good idea since what gets written down gets measured, but a requirement for Washington state employers.

A basic safety plan is good business and a rule set forth by the state Department of Labor & Industries (WISHA division). Each employer must have a basic Accident Prevention Program (APP) that is "effective and in practice." It is not enough to have a generic program sitting on the shelf. The plan must be a "living" or "working" document that gives employers and employees guidelines on workplace protocols.

Telling people how to do their job does not go far enough. An operator must train employees, and follow up with remedial training if deficiencies are observed.

A written safety plan reminds the employer (operator) that protocols need to be followed. A plan also details the training and education programs that must take place to ensure worker safety. Developing a written plan need not be a lengthy process that results in a

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TIPS FOR GROWERS AND WORKERS

Proper use of protective gear reduces the risk of illness

THINK SAFETY WORK SAFELY

*By **Barbara Morrissey**,*
Washington State Department of Health,
Pesticide Program

The state Department of Health's Pesticide Program tracks pesticide-related illness in Washington and promotes prevention. When a healthcare provider reports a case, the program contacts workers and employers to find out what exposure occurred and the types of pesticides used. Our goal is to learn how the incident may have been prevented. In turn, the information we gather is used to help pesticide handlers and their employers prevent pesticide-related illnesses.

Recent follow-up with ill or injured agricultural workers reveals that problems persist in the use of personal protective equipment (PPE).

EQUIPMENT: Respirator

WORKER ISSUE: *"Sometimes I can smell the pesticide through the respirator. I think cartridges for our respirators are changed every one to two weeks"*

SOLUTION: Change the cartridges regularly on cartridge-type respirators. Most manufactures recommend replacement after 8 hours of use. How regularly depends on the specific cartridge and respirator. Cartridges need to be changed more frequently if: you are doing heavy work and breathing hard; the amount of pesticide vapor in the air is high; the temperature is hot; or the humidity is high.

Some workers wear respirators without being fit-tested. Do get your respirator fit-tested to ensure that unfiltered air is not sneaking in around the edges of

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Estimate the service life of your cartridges at www.osha.gov/SLTC/etools/respiratory/change_schedule.html.

Find out more about fit testing and respirators at www.lni.wa.gov/Safety/Basics/Programs/Accident/Samples/RespProtectguide2.doc.

Pesticide use and safety training – *in Spanish* – is on the rise

During the past decade, the agricultural industry's need for pesticide training programs in the Spanish language has increased steadily. WSDA introduced Spanish pre-license training in the early 1990s and, in turn, that drove the need for Spanish recertification courses. When the Worker Protection Standard (WPS) went into effect in the mid-1990s, it expanded the need and scope of training for Spanish-speaking workers. The exponential growth of Hispanics working in the turf and landscape industry continues to drive the need for training industry wide.

Today, Spanish-language training is offered by a variety of independent groups, growers and associations, as well as by organizations working in partnership. While WSDA offers agricultural prelicense and recertification training, WSU provides similar training for the turf and ornamental industry. On several occasions, WSDA and WSU have partnered with the agricultural industry to conduct WPS-handler and train-the-trainer programs. The latter training focuses on employers and supervisors who want to develop effective, comprehensive training for worker and handler employees on site. Grower and other industry groups and associations routinely run both English and Spanish tracks at conferences. An early leader in this effort was the Washington State Horticultural Association that held the first Spanish track at an annual conference in 1990. Earlier this year, the Governor's Industrial Safety and Health Advisory Board used the dual track education method at its first annual Ag Safety Day.

Clearly, progress has been made in the number and breath of Spanish-language courses. But much more needs to be done. The findings of the cholinesterase monitoring program (see article on page 1) highlight that behavioral change in the way pesticides are handled is necessary. This is accomplished by a change of mindset, effective education, compliance and technical assistance, and a willingness to work together. Employers are at the heart of this change. But employees must also accept responsibility in protecting themselves, their co-workers and the environment. (See Failure to plan article on page 2.)

Washington's agricultural workforce draws its strength, in part, from the diverse groups that collaborate to facilitate and conduct trainings. This collaboration needs to continue and expand. In rec-

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Trainer Ofelio Borges helps pesticide applicators learn the best way to properly clean and remove personal protective equipment during a hands-on training held this March in Sunnyside. This program was in partnership with WSU Extension and the Washington Growers Clearing House.

Know what it takes to supervise an unlicensed applicator

Can a licensed applicator supervise an unlicensed applicator in a situation where a license is required? The answer is a cautious "yes." A licensed person can supervise an unlicensed person if he or she holds the right type of license, and provides the level of supervision required by law.

Unlicensed employees performing commercial landscape applications must be directly supervised by a properly licensed applicator. The licensed applicator must be physically present and in constant eye and earshot of the unlicensed person.

Supervision and application types

Direct supervision in situations that require a Private Applicator license does not always require the licensed applicator to be physically present. However, it does require the individual to be readily available if the unlicensed applicator has questions. On-site supervision is only required for a few highly toxic, restricted use pesticides. Refer to the label to determine if this level of supervision is required.

In the case of non-forestry commercial applications, the licensed applicator must be physically present and always within eye and earshot of the unlicensed person whenever an application occurs. Commercial forestry applications do not require constant voice and visual contact if the worker applies general use pesticides with non-power equipment. But the licensed applicator must be on site and readily available (immediate area) to directly observe the mixing and loading of pesticide. As for public employee applications, the unlicensed worker must be supervised when applying a restricted use pesticide, or any pesticide using power equipment. In such situations, the licensed applicator must be physically present and always within eye and earshot of the unlicensed person.

In all situations described above, a person who supervises the unlicensed applicator must be properly licensed to perform the application. That means maintaining a current license and holding any required license categories.

Practice safely and legally

What is the role of the licensed applicator? And, how much responsibility does this person have for ensuring a safe and legal application?

A certified applicator who directly supervises an unlicensed person, out-and-out accepts responsibility for the safe and legal use of pesticides. Any violation committed by the unlicensed applicator directly implicates the licensed supervisor. If and when a violation occurs, you may face a fine or suspension, even if you – the direct supervisor – did not make the application.

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Prepare your employees for pesticide exams

There is nothing more discouraging to a WSDA exam proctor than asking a test-taker what pesticide exams he or she needs to take, and hearing: "I don't know. My boss gave me some manuals yesterday, and told me to show up here today."

When an employee comes unprepared to take a test, he often retakes the exam – multiple times – before passing. An employer's disinterest in the WSDA certification process not only undermines employees, but also the success of a business. Here's what's wrong with this passive approach to license certification:

- **Sends the wrong message.** Your apathy makes it loud and clear that you find little value in the certification process. Although not perfect, the system does require that your employees demonstrate knowledge about how to properly apply pesticides to your customers' property. An incompetent employee is a direct reflection on your company. The actions of a poorly trained employee can result in less business, injury to a customer, enforcement actions, and even expensive and time-consuming litigation.
- **Sets employees up to fail rather than succeed.** If you show employees you value the learning process and their development, you stand a better chance at recruiting and retaining good workers. If your actions show otherwise, how can you expect employees to care about your business?

If you show employees you value the learning process and their development, you stand a better chance at recruiting and retaining good workers.

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Licensees: successful recertification means taking charge

An article in the 2004 edition of PesticideNotes (*agr.wa.gov/PestFert/Publications/Newsletter*), focused on sponsors and their responsibility to properly accredit and manage courses. Now, it's time to focus on licensees and their role in making the recertification process a positive one.

Here are seven pointers to help Washington licensees create their own successes:

Step 1: Know the requirements of your license type. The license type dictates the total number of WSDA approved credits required during a five-year cycle and any license specific requirements. For all licenses, except the Limited and Rancher Private Applicator, the rules specify maximum allowable credits per year. This means that you must spread credit accumulation over multiple years; don't wait until the last year of your cycle to earn credits.

During a five-year cycle, Limited Private Applicators must earn eight credits, and Rancher Private Applicators must earn 12. Neither license imposes restrictions on the number of credits earned yearly. But all the credits for the Limited Private Applicator license must directly or indirectly relate to weed control. Private Applicators must earn 20-credit hours over the five-year cycle with no more than 10 credits each calendar year. All other license types must earn 40-credit hours during a five-year cycle with no more than 15 credits each calendar year.

Step 2: Find recertification courses meaningful to you. With more than 1,200 sessions accredited every year, one or more courses are bound to meet your needs. All open, WSDA-approved courses appear on the department's Web site. If your agency or company wants topic-specific courses, consider hosting one of your own. It's easy to get courses accredited. If you are not satisfied with the courses you attend, work with course sponsors to improve next year's program.

Why leave successful recertification to chance? Take charge of your recertification experience, and move seamlessly through the process while keeping current on pest control information.

Step 3: Understand how and if courses are accredited. Since only topics relevant to pest management, pest inspections or pesticides will earn you credits, recertification courses often are granted partial accreditation. Do not assume a four-hour course is assigned four credits. Both the course roster and recertification list on the Web site will confirm the number of approved credits. The Web listing also shows if an upcoming course is accredited. To determine if a closed course has been granted credit, contact WSDA or the sponsor.

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Worker safety...continued from page 1

My agency places a high priority on Worker Protection Standard (WPS) compliance, technical assistance and outreach efforts. These activities work in unison to ensure that agricultural employers meet their responsibilities under the standard and that growers and farmworkers know how to protect themselves from pesticides.

THINK SAFETY WORK SAFELY

We are concerned that agricultural employers continue to have challenges around complying with WPS (see "Growers, nurseries and pesticide handlers need better compliance record" on page 1). These issues will be addressed through continued WPS inspection activities and increasingly through education and partnerships with the agricultural community (see "Pesticide use and safety training – in Spanish – is on the rise" on page 3).

Most importantly, growers and their employees must take full responsibility for protecting themselves and those around them. Education and technical assistance only work if lifelong practices are adopted. Jeff Lutz, Safety Officer for the Washington Farm Bureau, encourages employers to develop, implement and continually practice a comprehensive safety plan (see page 2). Remember the old saying, "Safety is no accident."

I encourage all of you to read the valuable information contained in this newsletter and commit today to reviewing your current practices and making any necessary corrections. Our employees are our most valuable resource; it is our responsibility to do everything possible to protect them, their families and all our residents from unnecessary pesticide exposure.

Ag considers chemigation license category

Individuals applying pesticides through irrigation systems may need a chemigation category in the future. A group of industry representatives is advising WSDA on the possibility of requiring this category due to the unique nature of chemigation applications and the significant consequences of a misapplication or accident.

The unique nature of chemigation applications is compelling WSDA to consider a new licensing category.

The advisory group will decide the scope of the category, including who must obtain the endorsement. The chemigation category would be in addition to the pest control category (e.g., Soil Fumigation, Agricultural Insect and Disease, Agricultural Weed) currently needed to perform applications. Several states, including Idaho, currently require a chemigation category. The categories differ in these other states depending upon whether the requirement applies to 1) all applications (commercial and private); 2) commercial applications only; or 3) restricted use pesticides.

In our state, a rule change will be necessary to implement the proposed chemigation category. If you are not currently on WSDA's list of individuals interested in receiving information about possible rule changes and would like to be, please contact Laurie Mauerman at (360) 902-2012 or lmauerman@agr.wa.gov.

Recertification Sponsor Alert

Proper maintenance of the WSDA recertification credit roster is critical to the integrity of the program and your ability to sponsor future courses. Recently, a reputable sponsor learned the hard way that putting out the recertification roster at the start of a course created a temptation too great for some to resist.

Although most licensees were respectful and attended the entire course, some saw fit to sign and leave. An incoming WSDA monitor corrected the problem quickly, but the incident left the wrong impression with the remaining licensees. The sponsor worked to correct this impression by sending a letter to attendees acknowledging this unfortunate event – one that would not be repeated – and notifying them that signing a roster for a course not attended constitutes fraud.

Here is a quick list of dos and don'ts for course sponsors:

- Do wait until the end of the recertification session or course to put out rosters. Doing so early on only encourages licensees to sign up and leave.
- Don't allow a licensee to sign the roster if he or she has not yet attended the accredited course. It is your responsibility to maintain control of the sign-up roster at all times.
- Do let licensees know that they may receive partial credit for a course, if they must arrive late or leave early. Just make a notation next to their name indicating their arrival or departure time. For example, write "in at 9:30" or "out at 2" so we can accurately assign credits.
- Don't delay sending the original, completed course roster to WSDA. Return them promptly, and make copies for your records.
- Do contact our Recertification Specialist, Irene Beckman, if you have questions, comments or concerns. Ms. Beckman can be reached at (360) 902-2023 or ibeckman@agr.wa.gov.

As always, the department appreciates your commitment to maintaining the integrity of the recertification program.

Sponsor tip: Download WSDA fact sheets and publications for use at recertification courses. Go to agr.wa.gov/PestFert/LicensingEd/Sponsors.htm to view the possibilities.

Spanish...continued from page 3

ognition of WSDA, WSU and other groups' efforts to conduct (hands-on handler) training programs, the 2005 Legislature appropriated $200,000 over the next biennium to promote farm worker education. WSDA will be soliciting feedback on how to best leverage these funds to meet the training/educational needs of the agriculture industry and its workforce. Your comments are appreciated and can be directed to Margaret Tucker, (360) 902-2015 or mtucker@agr.wa.gov or Karen Lewis, (509) 754-2011 ext. 411 or kmlewis@wsu.edu.

Growers, nurseries...continued from page 1

a bulletin board, must consist of a WPS safety poster and the name, address and telephone number of the nearest medical facility; it also should have a listing of all the pesticide applications within the last 30 days (of a re-entry interval) for areas that workers may be in or near. This board is required to be readily available and accessible to all workers whenever on the premises. Sixty-five percent of the individuals lacked one or more of the essential items required for decontamination, or those supplies in the appropriate areas. Another 60 percent of those inspected had failed to provide pesticide safety training (to meet WPS requirements) for their workers. Twenty five percent were noncompliant with the WPS posting requirements.

The first step in WPS compliance is to determine if, and when the rule applies to you. Compliance is a must for every farm, forest, greenhouse or nursery operation that employs agricultural workers and/or pesticide handlers on-site when pesticides have been applied in the past 30 days. The department's WPS inspection checklist covers all the areas of an actual inspection and is a useful self-assessment tool. Find copies of the checklist on-line, *agr.wa.gov/PestFert/Pesticides/WorkerProtection.htm* or contact WSDA, (877) 301-4555 or your local WSDA compliance office for a copy.

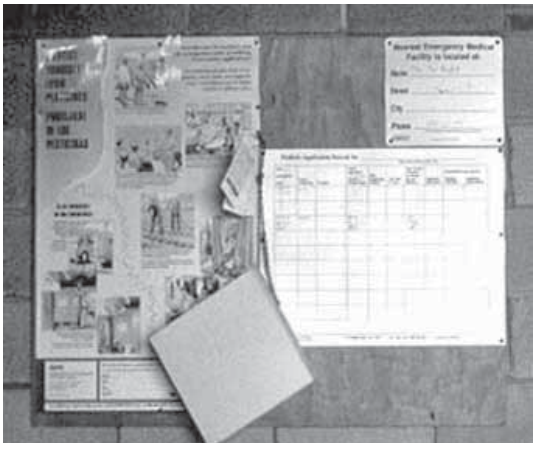
Numerous WPS specific materials are available through the Environmental Protection Agency (EPA). The EPA How to Comply manual and safety poster, training videos and more may be found at Gemplers (*www.gemplers.com*), the National Agriculture Compliance Assistance Center (*www.epa.gov/agriculture/awor.html*) and WSDA. For more resources, consult the WPS section of the pesticide law booklet (*agr.wa.gov/PestFert/Pesticides/docs/PesticLawsBooklet.pdf*). Additionally, the Pesticide Management Program offers technical assistance upon request and self-assessment and educational tools to help operations achieve compliance with the rule.

How the inspection process works

WSDA conducts many different types of inspections with growers, dealers, commercial applicators and pesticide producers. While each type has unique elements, all inspections are conducted in a similar manner. Many of the inspections are done in conjunction with EPA oversight.

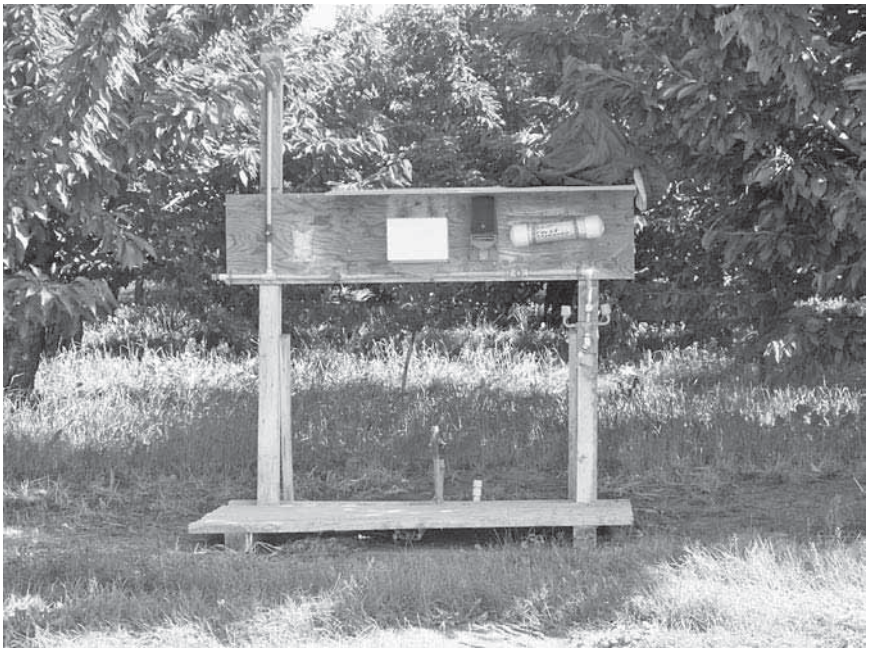
Typically, a WSDA inspector arrives at your business or property, introduces him-or herself and requests permission to conduct the inspection. The inspector describes the inspection process and the general areas to be covered. Next, the inspector uses a standardized checklist to inquire about and cover the relevant areas of compliance. You will receive a copy of the inspection form immediately following the inspection or shortly afterwards if information verification is required.

When an inspector finds item(s) to be deficient and of a non-serious nature, the corrective action for first time infractions may vary from a Verbal Warning to a Notice of Correction (NOC). An NOC letter notes areas of deficiency (noncompliance) and provides a time frame in which the grower, dealer or applicator must achieve compliance. If an inspection reveals a more serious violation, or if it is a repeat violation of a similar nature, WSDA may administer a civil penalty, a license suspension or both. Lastly, the final inspection file is reviewed by the area supervisor and sent to Olympia.



A central notification area that contains all the required elements of a safety poster, medical facility information and details of recent pesticide applications is only observed in 20 percent of WSDA inspections.

Copies of the WSDA inspection checklists are available to help you determine your current compliance level and prepare you for an inspection. For more information, contact Compliance Services toll-free, (877) 301-4555.



This decontamination station at an orchard's mix/load site includes the required elements of soap, running water, paper towels, clean change of clothing (coveralls in PVC tube) and emergency eyewash.

Cholinesterase...continued from page 1

The Rule, *WAC 296-307-148: The Department of Labor & Industries' rule for cholinesterase monitoring among agriculture employers requires employers to provide blood testing to workers who handle organophosphate or N-methyl-carbamate pesticides. These products are labeled with the signal words: "Danger" (Toxicity Category I) or "Warning" (Toxicity Category II).*

A list of these covered pesticides is maintained on the WSDA pesticide Web page at agr.wa.gov/PestFert/Pesticides/WorkerProtection.

A note to growers: *The rule applies to all growers who use the pesticides covered under the rule. All handling of covered pesticides must be documented and employees offered testing as required under the rule.*

a cholinesterase depression of greater than 20 percent from baseline level; these results warranted an evaluation of workers' pesticide handling practices.

- Of the 119 workers 22 or 3.8 percent experienced cholinesterase depression greater than 30 percent and, in some cases, 40 percent from baseline; the results required the workers be temporarily removed from exposure to pesticides that inhibit cholinesterase. (The rule is designed to help employers, employees and providers identify overexposure to cholinesterase-inhibiting pesticides before symptoms develop. If a tested individual reaches the 20, 30 or 40 percent depression threshold, steps are taken to prevent further exposure and possible illness.)
- None of the monitored workers were actually diagnosed with pesticide-related illness.
- There were no cases of definite, probable, or possible pesticide poisoning identified last year in conjunction with the cholinesterase monitoring program.

Generally, participating employers have basic safety programs to protect their employees from pesticide exposure. However, evaluation of workers' pesticide handling activities identified a number of factors that could account for worker overexposure. These factors included:

- Failure to change respirator cartridges on schedule (Generally, daily changing is required)
- Failure to fit test worker's respirators
- Removal of respirators while spraying
- Inconsistent decontamination of personal protective equipment, respirators, and pesticide application equipment
- Wearing of baseball type caps and bandanas during spray application. (Impervious headgear is required)
- Lack of readily accessible hand washing and emergency wash resources

Program changes in 2005

In order to be included in the medical monitoring program this year, a worker must handle organophosphate or carbamate pesticides with the words "DANGER" or "WARNING" on the label for 30 hours in a consecutive 30-day period. In 2004, the handling-hour threshold was 50 hours, and workers' hours were reported directly to the Department of Labor and Industries (L&I). But in 2005, employers will report each employee's handling hours to the medical provider at time of testing. (Note: New reporting forms are available on the L&I Web site *www.lni.wa.gov/Safety/Topics/AtoZ/Cholinesterase/default.asp*)

Another change is that growers' reimbursement requests for medical, training, travel, and recordkeeping costs related to cholinesterase monitoring must have been submitted to L&I by June 30, 2005.

Baseline and periodic testing for 2005 is already underway. Workers who expect to meet the 30-hour exposure threshold, and still lack a baseline test, should get tested as soon as possible. A list of medical service providers may be found on the Department of Labor and Industries' cholinesterase monitoring Web page (see below). Local L&I offices have industrial hygienists who can assist callers with specific questions. For a consultation, call your local L&I office and ask for a WISHA consultation supervisor.

Cholinesterase: A key enzyme governs body's nervous system

Overexposure to organophosphate and carbamate pesticides may lower the level of available cholinesterase, an enzyme necessary for proper nervous system function. Low levels of this enzyme may cause a range of symptoms from blurred vision, diarrhea and tremors to seizures, loss of consciousness and even death.

By monitoring cholinesterase levels in the blood (red blood cell [RBC ChE] and plasma [PChE] cholinesterase) physicians can detect cholinesterase depression prior to the onset of illness. Periodic testing also provides information related to the degree of exposure and the effectiveness of protective measures aimed to keep workers safe. Symptomatic illness is not expected to occur until cholinesterase level(s) drop to greater than 50 percent from baseline.

Currently the Washington State Public Health Laboratory (PHL) is the only laboratory approved to provide testing services under the rule. This allows for consistent and comparable testing data. The PHL and Department of Health Office of Epidemiology collaborate to collect and maintain cholinesterase testing data.

For more information on cholinesterase and cholinesterase-inhibiting pesticides go to the L&I cholinesterase monitoring Web page at *www.lni.wa.gov/Safety/Topics/AtoZ/Cholinesterase/default.asp*

A few tips:
Cleaning and replacing PPE

There are equipment cleaning and placement guidelines that will help you prevent exposures on the job. You might consider using fluorescent dye as a training aid to test your decontamination procedures.

- Before removing your gear – rain suits, gloves and boots – wash them off with soap and water. Remove your outer gear first with your gloved hands.
- Remove your gloves last. Importantly, peel off gloves without touching the outside of the gloves with your bare hands.
- Peel off the left glove by holding the outside of the cuff with the right hand. Next, hold the left glove that is now wrong-side out and use it to peel off the right glove. Both gloves will then be wrong-side out, with the contaminated surface to the inside, ready for washing or disposal. Later, wash gloves with a strong detergent and dry on clothesline (not a dryer) Disposable gloves should not be reused, but rather disposed of with the pesticide containers and bags.

You'll want to replace gloves and/or protective suits after the recommended amount of time, or if you notice:

- staining or color change, inside and/or outside;
- softening, swelling, or bubbling;
- stiffening, cracking, or surface change;
- dissolving or becoming jelly-like; or
- leaking at any time.

If you have questions and wish to speak to someone at DOH's Pesticide Program, call Barbara Morrissey at (360) 236-3368.

Gloves, suits, goggles, and respirators can protect handlers from splashes and pesticide vapors. Always wear the PPE required on the pesticide label.

Protective grae...continued from page 3

the mask. Cartridges will absorb pesticide vapors from the air even when not in use. Therefore, between uses make sure to store cartridges in a clean, sealed plastic bag. Chemical cartridges cannot be cleaned; soap and water ruin them. If the cartridges have life left in them, remove them before cleaning the respirator with soap and water.

EQUIPMENT: Gloves

WORKER ISSUE: *"I was wearing rubber gloves but my hands were all red and irritated when I took off my gloves. I guess they were the wrong type of glove for the pesticide I was mixing."*

SOLUTION: Wearing the right gloves is key to preventing pesticide exposure. Wearing the wrong gloves allows pesticide to seep into the glove, and irritate your skin. What is more, wearing the wrong gloves can increase absorption through your hands, especially if gloves make your hands sweaty and warm; moist skin absorbs pesticide more easily.

For granular and most water-based pesticides, natural rubber, neoprene, PVC or polyethylene gloves provide protection. If the pesticide is an emulsifiable concentrate and contains solvents (such as xylene, fuel oil, petroleum distillates, and alcohol), wear fluorocarbon (Viton), butyl rubber, nitrile rubber, or barrier laminate gloves.

EQUIPMENT: Safety Glasses (eye protection)

WORKER ISSUE: *"I was applying and the wind blew the spray back in my face. My eyes started hurting right away. "I was wearing safety glasses but a splash came around the side and hit my left eye."*

SOLUTION: It should be noted that in the field, eye injuries are one of the more common types of pesticide injury. Wearing eye protection is recommended whenever handling pesticides. Even though not all labels require eye protection, most labels state "Do not get into eyes." While safety goggles tend to fog up more than glasses, they provide much better eye protection. Goggles are required for most mixing tasks.

Editors Note: The quotes in this article are compilations of statements from pesticide handlers.

THINK! SAFETY WORK! SAFELY

See glove safety at www.cdc.gov/nasd/docs/d001001-d001100/d001063/d001063.html

Visit the EPA chart at www.epa.gov/oppfead1/safety/workers/equip.htm

And keep in mind that some pesticide labels specify the type of required glove using a letter system 'A through H'. EPA site has a glove recommendation for each letter.

Eye protection and other PPE for agricultural workers: www.ext.nodak.edu/extpubs/ageng/safety/ae1107w.htm

Eye protection and other PPE for non-agricultural workers:www.cdpr.ca.gov/docs/whs/pdf/hs1742.pdf

THINK SAFETY WORK SAFELY

Know what it takes...continued from page 4

For commercial and public operators, it is much easier for a licensed supervisor to maintain control of the operation since direct supervision occurs on-site. Mistakes can be corrected or prevented before significant harm is done. But fixing mistakes in the absence of direct observation is difficult. This can be the case with direct supervision by Private Applicators.

Many agricultural establishments employ both licensed and unlicensed applicators, assigning the role of direct supervision to their licensed employees. Does your employer list you on pesticide application records as the licensed applicator when an unlicensed employee actually performs the work? If so, discuss the situation with the employer; stress that as the licensed applicator in a supervisory role, it is key to maintain control over the unlicensed employee and spraying operations. As a direct supervisor, you possess the qualifications to call the shots, and are accountable, if something goes wrong.

By directly supervising an unlicensed applicator, you have an even greater obligation to ensure worker, community and environmental safety. Take the time to fully understand your responsibilities before taking on the role. For more information on direct supervision, refer to RCW 17.21.020(13) of the Washington Pesticide Application Act, available at agr.wa.gov/PestFert/Pesticides/LawRules.htm.

Remember, restricted use pesticides have inherent risks, such that their use is restricted to a certified applicator or persons under their direct supervision. With such products, the margin for error is slim; the potential for causing harm to people, property or the environment is great – much greater than it is with other pesticides.

Consider the following points if you provide direct supervision to an unlicensed applicator:

- **Competency.** Is the unlicensed applicator competent to make the application? A person that applies pesticides must be intelligent, conscientious, capable of following directions and able to pay attention to details.
- **Personal Safety.** Is the applicator wearing all of the personal protective equipment (PPE) required by the label?
- **Knowledge.** Does the applicator know how to properly mix the pesticide at the correct concentration?
- **Skill Level.** Does the applicator know how to operate the equipment at the correct speed and pressure so as to apply the pesticide at the correct rate?
- **Complexity.** Will the applicator follow through on special instructions to prevent drift? Instructions include maintaining proper pressure, turning off the sprayer at row ends, leaving buffers near sensitive sites, and spraying only in a direction away from sensitive sites.
- **Decision Making.** Does the applicator know what to do if the wind picks up or shifts direction, or if other conditions occur that may contribute to drift? If necessary, does the applicator have the power to stop an application?
- **Communication.** If questions arise, does the unlicensed applicator have a quick way to contact the Private Applicator providing direct supervision?

Failure to plan...continued from page 2

300-page manual. But is should be a reader-friendly handout, covering the basic safety guidelines: What will employees do in an emergency? To whom do employees report unsafe conditions? Where can employees find first aid kits? What specific training will be required? And, what PPE (Personal Protective Equipment) will be used in the employees' tasks or job? An APP plan should cover training protocols for basic workplace items such as ladder use, tractor and machinery use, respiratory protection, lock-out/tag-out, confined space, hearing conservation, the plan should cover safety meetings, worker injury reporting, chemical hazard communication, basic new-hire orientation to the company safety program and more.

Checklists are great tools for tasks such as PPE training, use and evaluation. Labor & Industries (WISHA) Web site offers several PPE evaluation tools and others: www.lni.wa.gov/safety/basics/Programs/Protective/default.asp

Telling people how to do their job does not go far enough. An operator must train employees, and follow up with remedial training if deficiencies are observed. An owner/operator must ensure that supervisors require their employees to follow established written, educational and training protocols.

Guides help identify what PPE may be needed for each job, and tasks within a job. Of course, the proper way to determine PPE use for pesticides and chemicals is by reading product labels and following the directions. Label-like guides are available from the Labor and Industries Web site, as well as from trade associations, such as the Farm Bureau.

Safety is not a one-time consideration. It's an on-going process. The combination of personal awareness, training and education will make applying workplace policies an inherent act for workers and supervisors. When policies become ingrained, safety plans are followed almost automatically.

Pesticide investigations and enforcement

Formal and non-formal enforcement actions

In 2004, WSDA investigated 197 complaints involving pesticide use, pesticide licensing, and building inspections for wood-destroying organisms. Of that total, 107 resulted in violations. Investigators also reviewed 47 complaints related to human exposure as compared to 22 such complaints in 2003.

Table 1: Total Complaints and Violations, 2002-2004

Year	Total Complaints	Total Violations
2002	255	115
2003	222	120
2004	197	107*

Based upon cases completed to date (See sidebar, right)

Most complaints of the past year originated in eight counties: King (28), Grant (19), Spokane (18), Benton (16), Yakima (15), Walla Walla (11), Pierce (10) and Snohomish (10). See Table 1 for a complete listing of complaints during the past three years.

When a pesticide violation occurs, WSDA may take a range of actions. Only the Notice of Intent (NOI) is a formal enforcement action under the Administrative Procedures Act (RCW 34.05). An NOI is a formal document stating the department's intent to assess civil penalties to the alleged violator and/or to suspend, deny or revoke the alleged violator's pesticide license.

WSDA also takes non-formal enforcement actions toward the infractor including:

- A warning administered verbally by a field investigator which specifies the violation
- An advisory letter which provides specific written advice on how to comply with the laws and rules related to pesticides
- A Notice of Correction (NOC), a written document issued when a minor violation of pesticide laws and rules has occurred. The NOC identifies the specific law and/or rule violated, steps on how to correct the violation, and a timeline for corrective steps.

Under WSDA's pesticide violation penalty matrix, the maximum penalty WSDA may assign is $7,500 per violation and/or 90 days license suspension or license denial or revocation. The typical penalty for a non-serious, first-time violation is $200 to $500 and a license suspension of two to six days. However, a first-time violation, in most cases, would result in a NOC and not advance to the civil penalty stage until a repeat violation occurred.

The typical penalty for a first-time human exposure violation is $350 to $550 and a license suspension of five to nine days. However, in actual case results that reflect multiple violations and/or aggravating circumstances, fines of $1,000 and more have been issued. In first-time human exposure cases, WSDA may assess a civil penalty from the start without first issuing an NOC. WSDA may also refer appropriate cases to the Environmental Protection Agency for criminal prosecution or civil action. Table 2 summarizes the formal and non-formal enforcement actions completed in the last three years.

Table 2: Enforcement Actions Completed, 2002-2004

Actions Completed	2002	2003	2004
Formal Enforcement Action			
Actions resulting from Notices of Intent (NOI)	52	33	30^
License Suspension (days)	1,479	294	942
Civil penalties assessed	$51,125	$28,350	13,460
Non-Formal Enforcement Action			
Notices of Correction (NOC) issued	101	147	117

^Includes 3 NOIs to deny license

About Enforcement Actions

Complaints in a given year do not directly correlate with the enforcement actions taken in that year. Due to the complexity of an investigation, an enforcement action is often completed the year after the complaint is received. Also, some complaints result in actions taken against more than one person. For information on complaints and enforcement action, see the appropriate annual report of the Pesticide Incident Reporting and Tracking (PIRT) Review Panel, prepared by the state Department of Health.

As much as possible, department investigators work with individuals to correct violations by issuing a 'non-formal' NOC. In fact, WSDA has issued two to four times as many NOCs as NOIs in the past three years. Other actions, such as a verbal warning or advisory letter, are not tracked, but do become part of a case file.

Department Actions

PESTICIDE MANAGEMENT DIVISION | APRIL 1, 2004–MARCH 31, 2005

PERSON AND COMPANY	LIC	$ AND DAYS	DESCRIPTION	EQUIPMENT	PROVISION(S)
Robert Abramoski Okanogan Co. Public Works	PO	$550 + 9	Roadside herbicide applications alleged to have damaged fruit trees	3	a,b,d
Damion Acosta, Best Pest Control, Lynwood	CO	$0 + 97	While working for Eastside Exterminators, Kenmore, Acosta allegedly operated without a proper license, falsified records and committed other record keeping violations	3	g,h,i,j,q
James Allen, Oak Harbor School District	PO	$0 + 182	Buried over 600 lbs. of pesticide on school grounds; made false statements to department investigator	NA	a,b,c,d,i
Sergio Bernal, Othello	PA	$300 + 4	Supervised application alleged to have drifted onto adjacent residences; inadequate records	1	a,b,c,g,o
Bleyhl Farm Services, Inc., Zillah	PD	$600	Sold a federal restricted-use pesticide to a person who was not licensed.	NA	p
Brian Cobb Ephrata	UL	$900	Allegedly baited calf carcass with highly toxic pesticide, killed several dogs	NA	a,b,c,d
E. Dorm Cooley, Cooley Inspection Service, Anacortes	SPI	$0 + 36	Inadequate WDO inspection and report	NA	e,f,i,r
Phillip Dart, Oroville	UL	$650	Allegedly applied a state restricted use pesticide without license, applied to crop not on label, drifted onto adjacent orchard damaging fruit trees	2	a,b,d,h,s,t
Raymond Durfee, Simplot Grower Solutions, Quincy.	CO	$450 + 7	Directed improper disposal of pesticide	3	a,b,c,d
Gary Fernelius, Tieton	PA	$900	Failed to wear personal protective equipment required by the label	1	a,b,c
Robert Green, World Inspection Network, Woodinville	SPI	$360 + 2	Alleged inadequate WDO inspection and report; failed to submit records	NA	e,f,i,m
Arland Hansen, East High Flying Service, Warden	CA	$450 + 7	Insecticide application to potatoes drifted onto seed alfalfa causing bee kill Reduced yield from inadequate pollination.	4	a,b,d,s,u
Gary Hansen, Oak Harbor School District	UL	$0 + 365	Ordered burial of over 600 lbs. of pesticide on school grounds; made false statements to department investigator.	NA	a,b,c,d,i,k
James Keller, Tieton	PA	$500 + 6	Failed to submit pesticide application records.	NA	q
Robert Magnussen, Pest-Or-Us, Inc., Wenatchee	CO	$0 + 14	Application of granular pesticide contaminated dog's watering bowl and child's wagon, dog became sick. Pesticide was not registered for residential landscapes.	3	a,b,c,d
Mario Martinez, Selah	PA	$300 + 3	Failed to submit pesticide application records.	NA	q
Michael Moore, Quincy	PO	$450 + 7	Right-of-way herbicide application drifted, damaging potato field.	3	b,d
Steven Newman, Oak Harbor School District	PO	$0 + 182	Buried over 600 lbs. of pesticide on school grounds; made false statements to department investigator.	NA	a,b,c,d,i
Duane Peart and Stemilt Management, Inc. Wenatchee	UL	$600	Allegedly failed to submit pesticide application records.	NA	q

Duane Peart and Stemilt Management, Inc. Wenatchee	UL	$1,600*	Application by employees alleged to have drifted across a public highway exposing a number of vehicles.	1	b,l,n
Larry Pruitt, Northwest Home Inspections, Bremerton	SPI	$200 + 3	Allegedly conducted an inadequate WDO inspection and report.	NA	e,f,i
Larry Spurbeck, Moses Lake	UL	$450	Applied a pesticide cancelled by EPA in 1983 on a residential landscape. One worker in the area allegedly became ill.	3	a,b,c,d
David Twitchell, Pests-Or-Us, Inc. East Wenatchee	CA	$200 + 1	Allegedly applied inconsistent with label by applying to a site not listed on the label.	3	a
David Twitchell, Pests-Or-Us, Inc. East Wenatchee	CA	$350 + 3	Aided and abetted Robert Magnussen in applying a pesticide not registered for use on residential landscapes.	NA	a,k

Total Penalties: $9,810 and 928 days of license suspension.

* Purchased drift reduction equipment equivalent to a $1,600 penalty.

Licenses: CA = Commercial Applicator, CO = Commercial Operator, PO = Public Operator, PA = Private Applicator, SPI = Structural Pest Inspector, PD = Pesticide Dealer, UL = Unlicensed

Equipment: 1 = Airblast 2 = Ground boom 3 = Ground (other) 4= fixed-wing air

Violations:

a. Applied contrary to and/or inconsistent with label (RCW 15.58.150(2)(c), WAC 16-228-1500(1)(b))
b. Operated in a faulty, careless or negligent manner (RCW 17.21.150(4) and WAC 16-228-1500(1)(e))
c. Applied pesticides endangering humans, their environment (WAC 16-228-1200(1))
d. Applied causing damage/injury to humans, animals or desirable plants (WAC 16-228-1220(2))
e. Failed to make inspection, statement or report in violation of WDO rules (WAC 16-228-1500(1)(u))
f. Failed to comply with criteria for structural pest inspectors (RCW 15.58.150(2)(e)
g. Maintained inadequate pesticide application records (RCW 17.21.150(6) and/or WAC 16-228-1500(1)(g))
h. Applied without a proper license (various)
i. Made false, misleading or erroneous statements about a pest infestation or in connection with a department investigation (RCW 17.21.150(13) and WAC 16-228-1500(1)(p))
j. Made false or fraudulent records, invoices, reports, recommendations (RCW 17.21.150(7) , WAC 16-228-1500(1)(h))
k. Aided or abetted to evade provisions of this chapter (RCW 17.21.150(12) and WAC 16-228-1500(1)(o))
l. Failed to assure pesticide applied so as not to contact people directly or by drift (WAC 16-228-233-210(1)
m. Failed to submit WDO records requested by department (WAC 16-228-2000(3)(k))
n. Failed to assure pesticide applied consistent with label (WAC 16-233-020(1)(b)
o. Failed to assure no drift or overspray contacts worker or persons (WAC 16-233-210(1))
p. Sold RUPs to unlicensed applicator(s) (RCW 15.58.150(2)(a), WAC 16-228-1231)
q. Failed to submit (or tardy submission of) application records requested by the department (RCW 17.21.100(3)(4)(a), WAC 16-228-1320(3), WAC 16-228-1231(5))
r. Falsified license renewal application.
s. Applied during weather conditions that could cause drift and damage (WAC 16-228-1220(5))
t. Applied a restricted-use herbicide during a temperature inversion (WAC 16-230-640)
u. Failed to apply in manner that minimized hazard to pollinating insects of commercial importance (WAC 16-228-1220(1))

THINK SAFETY WORK SAFELY

To view the approved list of courses or to learn more about course sponsorship, go to our Web site, agr.wa.gov/PestFert/LicensingEd/Recertification.htm.

Having trouble finding recertification courses in your area? Check out WSU's on-line courses at pep.wsu.edu/RecertOnline.html.

Succussful recertification...continued from page 5

Step 4: Sign the course roster. All approved courses have a sign-up roster. Remember to complete the 'licensee information section.' Write your name exactly the way it appears on your license. It's too much to ask a sponsor to (recall) verify your course attendance from a year or more ago. Do you remember who you ate lunch with on January 23, 2003? Probably not.

Step 5: Follow the rules. Refrain from signing rosters for others, or signing rosters for courses you did not attend. It amounts to fraud and can lead to enforcement action against you.

Step 6: Keep track of your progress. Review the course credit report that is sent with your renewal packet each year. Act immediately if you find a discrepancy between the report and your records. Actively track your classes so you keep from reaching the end of your cycle with too few credits. WSDA staff will work with you to determine if additional credits can be granted to your license.

Step 7: Differentiate between "recertification cycle" and "license renewal period." Recertification cycles are five years long. All licenses (except those for Limited and Rancher Private Applicator) must be renewed annually. Know the difference. It's the key to operating legally. It also ensures that you continue to receive yearly WSDA credit reports, this newsletter, and training brochures from Washington State University's (WSU) Pesticide Education Program. Although many other sponsors offer training, WSU's recertification short courses are high quality and conveniently located across the state.

Why leave successful recertification to chance? Take charge of your recertification experience, and move seamlessly through the process while keeping current on pest control information.

Recertification alert to Private Applicators!

Beginning with 2005, the maximum number of recertification credits you can earn in a calendar year has increased from eight to ten. You will receive additional information in your renewal packet.

Heat stress...continued from page 2

Heat related disorders, symptoms and first aid

Heat Rash is a cluster of pimples or small blisters, also known as prickly heat. It usually becomes a problem with prolonged damp clothing due to unevaporated sweat. Keep affected area dry – do not apply ointments or crèmes.

Early heat stress symptoms include mild dizziness, fainting, fatigue, decreased concentration, thirst, and loss of coordination. Drink water or electrolyte solution (sports drink w/ electrolytes), loosen or remove clothing, rest in shade. If fainting occurs, take the individual to shade and allow victim to lie down. When consciousness has been regained, the person should recover after a brief period of walking around slowly. Immediate return to work in the heat is not recommended. This person probably had not acclimated to the heat.

Heat Cramps. As the name implies, this illness may manifest in painful cramps or spasms in the legs, arms and or stomach, as well as heavy sweating and thirst. Cramps may happen during work or later in the evening. Heat cramps usually indicate a temporary imbalance between salt and fluids. Loosen clothing, drink fluids, and rest.

Heat Exhaustion may include some or all of the following: heavy sweating, clamminess, flushed or pale skin, weakness, dizziness, nausea, rapid and shallow breathing, headache, vomiting and or fainting. It is due to the reduction of body water content or blood volume. The condition occurs when the amount of water lost (as sweat) exceeds the volume of water drunk during the heat exposure.

To properly treat a person with heat exhaustion:

- move victim to a cool/shaded area;
- place him or her on the backside with feet raised;
- loosen clothing and apply cool moist cloths to the body, fan, and pour water on the skin;
- slowly administer sips of water or sports drink; and
- if the worker vomits or loses consciousness, call medical facility

Heat Stroke is the most serious heat-related disorder. Victims of heat stroke usually die unless treated promptly. Heat stroke is caused by the body's inability to regulate the body core temperature. Sweating slows or stops preventing the body from releasing the

THINK SAFETY WORK SAFELY

excess heat. Signs and symptoms include a high body temperature, 104.5 degrees F or higher, hot, dry skin that appears bluish or red, severe headache, dizziness, shivering, confusion, irrational behavior. Sweating may be slow or stopped completely (in about 50 to 70 percent of sufferers). The person will have a rapid heartbeat and may have convulsions, nausea, and/or incoherent speech and aggressive behavior. Someone with this heat-related illness may become unconscious or slip into a coma.

A worker who becomes irrational or confused or collapses on the job should be considered a heat stroke victim; *act quickly and call medical help without delay*. Early recognition of symptoms and prompt emergency treatment is the key to aiding someone with heat stroke.

When waiting for medical assistance, cool the victim down by performing the following:

- move the individual to a cooler environment and remove outer clothing;
- wet the skin with water, and fan vigorously, or repeatedly apply cold packs or even immerse the person in a tub of cool (not ice) water; and
- fan the worker to cool him or her down, if no water is available

PREVENTING HEAT STRESS

Acclimate to the heat. An acceptable schedule for achieving acclimatization is to limit occupational heat exposure to one-third of the work day during Days 1 and 2; limit to one-half of the workday during Days 3 and 4, and two-thirds of the workday on Days 5 and 6. The process must be repeated if the individual returns to work after being off the job for a week or longer. To become properly acclimated, a person must work in the heat at the activity level required by the job. Handlers and others may adjust to the heat naturally, if the temperatures rise gradually.

Drink plenty of water when working in the heat. Relying on when you feel thirsty, or how much you perspire to dictate when you drink is not sound. In fact, by the time you are thirsty, you are already about 2 percent dehydrated. To replace the four to eight quarts of sweat that may be produced in hot environments, people require five to seven ounces of water every 15-20 minutes of the workday. Cool water (50-59 degrees F) is best for quick absorption. Caffeinated products do not hydrate, but instead act as a diuretic and deplete the body of fluid. Employers and managers must really impress upon piece-rate workers the need and benefits of staying hydrated; this group may neglect to take water breaks because of how they receive compensation.

Limit exposure to the heat and sunlight. On days when temperatures are predicted to be in the 90s and higher, schedule as many activities as practical for the coolest part of the day (early morning, late afternoon, evening, night).

Employees who work in high temperature and sunlight conditions while wearing PPE are especially vulnerable to heat stroke, a potentially fatal condition.

Take rest breaks at frequent, regular intervals, preferably in a cool environment sheltered from direct sunlight. Anyone experiencing extreme heat discomfort should rest immediately.

PPE selection can be a significant step in prevention. In general, PPE interferes with the body's natural cooling system. A person can get overheated quickly when wearing PPE. Using the pesticide label and personal experience as your selection guide, choose the minimum required PPE for tasks conducted on hot days. Do not over protect when heat stress is a concern. It is better to delay the tasks. In general, the more protective the PPE, the more it adds to the heat load. When it is possible and safe to do so, choose woven fabrics over non-woven polyolefin, plastic, treated or rubberized fabrics. Woven fabrics tend to "breathe" while the latter do not.

The buddy system is great for individuals working in somewhat isolated conditions on days where heat stress is a concern. Set up 'buddy pairs' among those who either work side-by-side or stay in relatively close communication. Make sure each person knows how to recognize heat stress symptoms, provide the basic first aid, and have a way to call for assistance. Quite often a co-worker will see the signs and symptoms of heat stress before the person who is suffering from the illness. At the very minimum, ensure that there is increased communication with workers working alone on hot days.

A comprehensive program to prevent heat illness in workers will protect health, improve safety and increase productivity.

A worker who becomes irrational or confused or collapses on the job should be considered a heat stroke victim; act quickly and call medical help without delay. Early recognition of symptoms and prompt emergency treatment is the key to aiding someone with heat stroke.

Prepare your employees...continued from page 4

- **Places burdens on the system.** Repeat test-takers clog exam sessions. This makes it difficult for others to reserve space and take tests. Some 'repeaters' even make reservations to test again before knowing the scores of their last session. Those who pass often neglect to cancel unneeded reservations, once again penalizing others who need to test.

How, then, should employers work with employees to ensure their success in the certification process?

- **Refer to pre-license training programs** offered by Washington State University's Pesticide Education Program (*http://pep.wsu.edu/Education/educ.html*). Alternately, develop in-house training and study programs. Test-takers who go through pre-license training tend to qualify for a pesticide license at a much higher rate than those who don't attend training. (Attendance by your licensed employees at in house trainings may qualify them for recertification credits. To learn more on how to sponsor recertification programs, visit *http://agr.wa.gov/PestFert/LicensingEd/Recertification.htm#SponsoringACourse*.)
- **Provide them with the proper study manuals** long before they attend training or need to take exams. Give them work time to read manuals. The most successful candidates prepare before the first day of class by reading the study materials and acquiring a basic understanding of the subject matter. Preparation allows attendees to actively participate in their training, and gain the confidence to ask intelligent, subject specific questions. Reading, understanding and knowing how to apply the technical jargon used in the pest control industry is critical to "passing the tests" and functioning competently once the license is issued.
- **Follow up with employees** after they take an exam(s). Offer to help them with troublesome subject areas. Many people struggle with the technical terminology and mathematical calculations common in pesticide application work. Suggest different study methods in hopes that employees find a strategy that works for them. Methods that have helped other test-takers include outlining the study manual (section by section), studying the glossary, and taking oral quizzes at the end of each chapter.
- **Understand that learning styles vary** from person-to-person. Employers may need to discover new ways to best help individual workers learn new tasks and develop new skills and abilities. Some people may be able to read and retain a body of written material; others may learn by hearing someone read that same material. Still others learn by the practical application of a skill through on-the-job training.
- **Determine a date** when employees will be 'test ready,' and be sure to make reservations in advance. By identifying a target date, workers then have a goal; and it eliminates the stress associated with getting into an exam session when workers feel 'test ready.' (Note: If an employee is unable to make an exam session, please call and cancel his reservation so others may attend.)
- **Adopt realistic expectations** for your workers. In other words, do not expect an employee with low literacy and math skills to pass pesticide exams. No amount of study manual review or pre-license training can overcome these obstacles. Support your employee by encouraging him to attend remedial courses. Or, place the person in another position that does not require these skills.

It is smart business to help employees succeed in the certification process. In 2005, set a standard that conveys to workers, customers and colleagues that your business values high-quality skills, and proper knowledge in pesticide applicators. This standard shows employees you both value their contributions and development. Valued employees care about the success of your business and their attitude is reflected in the way they treat customers, coworkers and your equipment.

For more program information, or to find out how to acquire biological control agents–insects–for weeds, contact one of the staff (article right), or Dan Fagerlie, (509) 775-5235; Fax: (509) 775- 5218, Email: fagerlie@wsu.edu or write to 350 East Delaware Ave. #9 Republic, WA 99166

Insects destroy Washington weeds

Biological agents give farmers a leg up

*by **Dan Fagerlie**, Director,*
WSU Ferry County Extension
Project Coordinators Daro Palmer, Dale Whaley, and Tara Zimmerman contributed to this story

In Washington state, biological weed control has become a supplement to, and even a replacement for, herbicides in suppressing weeds that threaten native grasslands.

Biological weed control is the intentional use of living organisms – insects, pathogens, fungi and or animals – to suppress an invasive pest population, including noxious weeds, to a more manageable level.

Biological agents are never a cure-all in the farmer's fight to subdue pests. The variety of species and or subspecies not to mention site restrictions can limit the use and effectiveness of pests. With this in mind, the practice of using natural enemies to suppress weeds continues to attract attention. Washington State University's extension program takes the lead in applying a program that specifically advances the use of insects to combat non-native invasive plants. The Washington Invasive Species Bioagent Enhancement Program started in the summer of 1999 in Northeastern Washington. Today, it's a cooperative, statewide effort working to increase the integration of bio-control methods with existing weed management programs.

To be certain, biocontrol methods are a long-term management approach intended to be combined with other management tools. With proper timing, insects can be used in conjunction with herbicides, physical or mechanical practices, such as mowing or hand pulling; insects, pathogens and the like also may be used when incorporating competitive plant vegetation (cultural management) into a weed infested area. Ranchers and others use insects to control large weed infestations in pastures, rangelands, and other open areas. It is especially suited for infestations that otherwise would cost too much to manage under conventional control practices, and in environmentally sensitive sites.

Among other services, the WSU program provides for 1) collection and redistribution of bio-control agents; 2) monitoring and evaluation of release sites; and 3) education of private landowners and government agencies on control practices, incorporation of such practices, and identification. The program makes insects available for a variety of non-native weeds, including:

- knapweed (diffuse and spotted)
- yellow star thistle Dalmatian and yellow toadflax
- musk and Canada thistle
- St. Johnswort
- purple loosestrife and leafy spurge
- poison hemlock, rush skeletonweed, and tansy ragwort

Larinus minutus is a seed-feeding weevil that attacks a variety of non-native knapweeds; it's most effective at suppressing diffuse knapweed. Adults feed externally, while the immature larvae feed inside of seed heads.

To see just how efficient Larinus minutus is at reducing knapweed infestations, visit the PesticideNotes Extra! section at agr.wa.gov/PestFert/Publications/Newsletter/2005.htm for before and after photos.

Larinus minutus and Mecinus janthinus, two of our more widely used insects (bioagents), have been used to suppress infestations of diffuse knapweed and Dalmatian toadflax. Both insects achieve outbreak populations that are capable of causing severe damage to the plant, reducing seed production, viability, and survival. In the past two years, these two pests have successfully suppressed thousands of acres of diffuse knapweed in Eastern Washington. In Western Washington, Galerucella pusilla and Galerucella calmariensis, two closely related beetles, have had a significant impact on purple loosestrife infestations. Purple loosestrife favors sensitive habitats, such as rivers, lakes, and wetlands, making this weed difficult to manage using conventional control methods. Thus, insects have been a key tool in curbing the spread of purple loosestrife.

The state's biological control program* is separated into four areas: Northeast Area, (fagerlie@wsu.edu); Central Area, coordinated by Dale Whaley (dwhaley@wsu.edu); Southeast Area and Statewide Resource Leader, coordinated by Washington State University's Dr. Gary Piper (piperg@wsu.edu), and the Western Area, coordinated by Tara Zimmerman and Jennifer Andreas (tara.zimmerman@metrokc.gov and Jennifer.Andreas@metrokc.gov).

**About the Invasive Species Bioagent Enhancement Program: The program is supported by funds from the U.S. Forest Service district, regional, national and Wenatchee/Okanogan/Colville N. Forest RAC Board; Colville Tribal funds and local county weed boards also support the program as do Ferry County; state Department of Fish & Wildlife, WSU, and USDA APHIS in Spokane and Montana. Stevens County Weed Board carries out critical mapping functions.*

KEEP GOOD NOTES

Record keeping for Commercial Applicators

Commercial Applicators are responsible for maintaining records of the applications they perform. These records must be provided, upon request, to WSDA and to certain other entities. In some situations, the Commercial Applicator must proactively provide details about applications; that way, agricultural employers can protect their workers, and schools and day-care centers can notify parents and staff about recent applications.

Important facts about application records:

- Application records shall be completed the same day the pesticides were applied. For situations that involve treating a possible pesticide exposure, the records shall be provided immediately to health care personnel upon request. All other records shall be provided within 72 hours or as outlined by the request. Agencies or persons that may also request records include: WSDA, Department of Labor and Industries, Department of Health, WA State Pesticide Incident Reporting and Tracking Review Panel, and the employee or their designated representative.
- Application records shall be kept for a period of seven years from the date of the application. If the business should change ownership or Commercial Applicator, it is recommended that the records remain with the business.
- Upon written request, the applicator shall provide the customer with a record of each application of pesticides to his/her land, for the current season, which shall contain the information listed in WAC 16-228-1320(1).
- A Commercial Applicator who applies a pesticide to an agricultural crop or agricultural lands shall provide a copy of the records required under RCW 17.21.100(1) to the owner, or the lessee, of the lands to which the pesticide was applied. If the owner or leasee employs one or more employees ("employee" defined in RCW 49.70.020), the employer must keep the records for seven years from the application date. Commercial Applicators applying to agricultural crop or agricultural lands of a person who employs one or more employees ("employee" defined in RCW 49.70.020,) shall provide records to employer who must keep them for seven years from the application date.
- For agricultural employers to meet the Worker Protection Standard requirements, the following must be provided to the farm by the Commercial Applicator prior to the application:
  1. Area to be treated (location & description),
  2. Time and date of the application,
  3. Product name, EPA registration number, active ingredient(s),
  4. Restricted-entry interval for the pesticide (month/day/time),
  5. Verbal notification of and written postings to treated area,
  6. PPE required by handlers,
  7. Early entry PPE required for workers,
  8. Other label requirements to protect workers & others
- For Public Schools and Licensed Day Care Centers, Commercial Applicators must provide to the school or day care:
  1. Product name,
  2. Date and time of intended application,
  3. Location to which the pesticide is to be applied,
  4. Pest to be controlled

Resources to help you learn more about recordkeeping requirements:

- *Recordkeeping article in WSDA's pesticide law hand-out booklet at: agr.wa.gov/PestFert/Pesticides/docs/PesticLawsBooklet.pdf*
- *Recordkeeping forms at: agr.wa.gov/PestFert/Pesticides/ComplianceActivities.htm#Recordkeeping*
- *The appropriate sections in the Washington Pesticide Application Act (RCW 17.21.100) and the General Pesticide Rules (WAC 16-228-1320) at agr.wa.gov/PestFert/Pesticides/LawsRules.htm*
- *Pesticide Applicator Recordkeeping Fact Sheet: agr.wa.gov/PestFert/docs/PesticideAppRecordkeepingRequirements.pdf*
- *Recordkeeping insert to the 2001 newsletter at: agr.wa.gov/PestFert/Publications/docs/2001PNRecordInsert.pdf*

Compliance Services toll free: (877) 301-4555.

Commercial Applicators: Make time to obtain proper licenses

Do you have a proper license to perform commercial pesticide applications? Failure to obtain the appropriate license(s) may affect you or your employer's ability to operate a legal business in Washington.

If you own or manage a business that commercially applies pesticides, you must have a Commercial Applicator (CA) license and hold the categories in all the pest control areas in which the company operates. A common misstep among CAs is to assume that as long as their employee (applicator) is licensed under the right categories, everything is fine. Not true. As the person in charge of pesticide applications, you, too, must prove competency in all areas of operation.

The employee of a commercial application business must have a Commercial Operator (CO) license and hold categories in their areas of operation. In addition, if you are supervising unlicensed applicators,

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Commercial Applicators: Keep this resourceful checklist nearby

This checklist has been created to help Commercial Applicators comply with WSDA pesticide regulations. Additional information is available on-line at agr.wa.gov/PestFert or by contacting pesticide program staff (see page 31).

- [ ] **Current Washington State Master Business License from Department of Licensing**
  For more information, go to *http://www.dol.wa.gov/businesses.htm.*

- [ ] **Current WSDA Commercial Applicator License**
  Commercial Applicator must hold all pest control categories in which the business operates.

- [ ] **Renew license each year before beginning any pesticide use activity**
  The renewals are mailed in the fall of each year. WSDA advises submitting renewal application before December 31.

- [ ] **Report all power equipment at time of renewal**
  Send in updates for any equipment changes by using WSDA's supplemental application form available at *http://agr.wa.gov/PestFert/docs/Form4242.pdf*

- [ ] **Proper use and placement of WSDA apparatus plate and window sticker**
  Attach apparatus plate to power equipment; make sure the plate has the current year's sticker affixed. For each vehicle used in a ground application business that does not display an apparatus plate, affix the WSDA sticker to the lower left of the windshield.

- [ ] **Report all Commercial Operator employees on Form B application inside the renewal packet**
  File any Commercial Operator changes within 30 days. Use WSDA's supplemental application form at *http://agr.wa.gov/PestFert/docs/Form4242.pdf*

- [ ] **Properly mark application equipment**
  Landscape and right of way applicators must display the company name and phone number on any power application equipment. Right of way applicators must also display "Vegetation Management Application" on the equipment.

- [ ] **Maintain a current file of labels and Material Safety Date Sheets (MSDS) in use in each application vehicle**
  Be aware that labels and MSDSs can change from year to year.

- [ ] **Maintain applicable WSDA regulations on file in the business office**
  Eastern Washington applicators understand your county rules for application of phenoxy herbicides (equipment/nozzle restrictions, notification requirements, weather).

- [ ] **Maintain proper insurance coverage**
  Make sure that your agent submits an updated Financial Responsibility Insurance Certificate (FRIC) prior to expiration of the previous FRIC. Many agents either forget or don't send the correct paperwork. A Certificate of Insurance is not adequate. The FRIC is available at *http://agr.wa.gov/PestFert/docs/Form4279.pdf.*

- [ ] **Maintain all application records for seven years**
  Records must be readily available to WSDA. For agricultural applications, the grower must be sent a copy of the records. Although other forms can be approved by WSDA, you can use the WSDA developed forms at *http://agr.wa.gov/PestFert/Pesticides/ComplianceActivities.htm#ApplicRecForms*

- [ ] **Post ornamental applications**
  Be sure to carry the required application posting signs in all vehicles. Post landscapes at time of application.

- [ ] **Buy your pesticide products from known, reputable dealers**
  Beware of telephone and Internet sales.

- [ ] **Ornamental and right-of-way applicators: Comply with notification rules for pesticide sensitive individuals**
  Review the Pesticide Sensitive Individual Registry every January and June when you receive it from WSDA. Develop a list noting any properties that are adjacent or close to your customers. Ensure that those pesticide sensitive individuals receive a minimum of two hours notification prior to any application.

- [ ] **Provide growers with pesticide application information**
  If your grower customer has employees, provide them with the application-specific information required in WAC 16-233-220 of the Worker Protection Standard. It allows growers to do a better job protecting their employees from pesticide exposure. Go to *http://agr.wa.gov/PestFert/Pesticides/WorkerProtection.htm* for further information.

- [ ] **Assist customers in public schools (K-12) and licensed day-care centers to comply with notification and posting requirements**
  Provide them with pesticide application information
  Refer to the WSDA Compliance Guide for the Use of Pesticides at Public Schools and Licensed Day-Care Centers at *http://agr.wa.gov/PestFert/Pesticides/docs/ComplGuidePub075.pdf*

- [ ] **Ensure that employees receive proper training and license certification**
  Each year, verify current status of each Commercial Operator license and make sure they have the right categories for the type of applications they make. Provide employees with required personal protective equipment for any product label; make sure they know how to properly use, remove and decontaminate it. Make sure respirators have been 'fit' tested. Each Commercial Operator must know the products and mix ratio of chemicals in their spray tanks. Instruct employees on proper recordkeeping including taking accurate measurements for temperature, wind speed and wind direction. Keep complete records each day.

- [ ] **Keep your protective clothing and application equipment maintained and clean. Calibrate your spray systems on a regular basis.**

- [ ] **Secure your load when transporting pesticide**

- [ ] **Keep storage areas clean, secure and, if required, placarded**
  For further information on storage requirements, go to *http://agr.wa.gov/PestFert/Pesticides/Storage.htm*

- [ ] **Secondary containment (permanent or portable), if required**
  Mix/Load Site: If mixing more than 300 gallons of product, 3000 lbs. of dry product or 1500 lbs. of active ingredient. Dormant oils are exempt. Separate, marked container for holding rinse water.
  Bulk Tanks: 500 gallons of liquid product, liquid mix or 2000 lbs of dry product.

- [ ] **Properly rinse and recycle plastic pesticide containers**
  Call NW Ag Plastics at (509) 457-3850 or WSDA for dates and locations.

- [ ] **Properly dispose of unusable pesticide products**
  Contact WSDA at 1-877-301-4555 or go to *http://agr.wa.gov/PestFert/Pesticides/WastePesticide.htm* for free disposal information.

Know when a job requires a permanent mix/load station

Commercial Applicators who handle large quantities of pesticides at one site must have a permanent mixing/loading site. If you mix, load, repackage or transfer on site more than

1) 300 gallons of liquid pesticide;

2) 3,000 pounds of dry pesticide; or,

3) 1,500 pounds total of pesticide

as an active ingredient in a calendar year, compliance with the secondary containment rules is mandatory. To learn more about the rules, visit *agr.wa.gov/PestFert/Pesticides/LawsRules.htm*. Also, contact Compliance Services toll-free, (877) 301-4555.

WSDA rules require applicators to set up a permanent mix/load site when handling large quantities of pesticide. The sun's rays put the spotlight on an agricultural set up with a mix pad (top right) that contains the mix/load equipment and rinsate storage. At an indoor facility (bottom right) used by a lawn care company, the entire mix pad contains space for parking, loading and storage tanks. Portable systems also are available and work well for semi-permanent locations.

Commercial Applicators help schools, daycare centers follow notification rule

In July 2002, the Legislature enacted the school posting and notification law (RCW 17.21.415) that requires schools to notify parents, students, and staff before and after pesticide applications occur. WSDA first began inspecting school districts for compliance with the law in 2004.

Among other things, a WSDA inspection involves examining application records and signs posted on the premises in advance of and after pesticide applications. (While Commercial Applicators are responsible for posting landscape applications, schools must ensure that applications made within the facility are posted.) If significant concerns arise in a school or daycare center's first inspection, WSDA does a follow-up visit with the commercial applicator.

To help school districts comply with this law, commercial applicators may help by:

- providing the school district with complete application records (i.e. full product names, EPA registration numbers, weather conditions for outdoor applications);
- giving officials plenty of lead time before making an application so that the district may post the required pre-notification; and
- establishing a contact person to post pesticide application notices at school facilities before services are provided (non-landscape applications for wasps, ants, or rodents).

For more information on how to provide services to school districts to help them comply with the law and protect school children, contact WSDA's Compliance Services toll free, (877) 301-4555 or e-mail compliance@agr.wa.gov

Limited & Rancher Private Applicator licensees should know their limits

In January 2005, the Pesticide Management Program permanently implemented licenses for Limited and Rancher Private Applicators in all of eastern Washington. The licenses previously were pilot project restricted to Ferry, Okanogan, Pend Oreille and Stevens counties.

More than half of the 172 licenses issued since January went to individuals who did not hold a license during the pilot project. More than 50 percent of the new licensees live in one of the original pilot counties with the highest number from Okanogan County. Thirteen individuals who reside in western Washington also obtained one of the licenses, presumably because they own land east of the Cascades. (The two licenses are valid only in eastern Washington.)

Individuals who hold these licenses, those seeking to obtain them, and pesticide dealers all need to be fully aware of the licenses' restrictive nature. As the definitions below highlight, neither license is intended for production agriculture.

The Limited Private Applicator license allows the holder to supervise and apply restricted use herbicides on non-production agricultural land that includes pastures, rangeland, fencerows & areas around farm buildings. The use of aquatic herbicides is not allowed. Noxious weed control in mixed rangeland-timber areas is permissible for the sole purpose of controlling weeds designated for mandatory control under state or local regulations. Applications of restricted use herbicides to control competing vegetation on forest lands and aimed at improving timber growth or survival are not permissible. The licensee may not use any other type of restricted use pesticides, including insecticides, fungicides and rodenticides, unless a traditionally licensed Private Applicator provides supervision.

The Rancher Private Applicator license allows the same uses as with the Limited Private Applicator license. In addition, this license allows the use of restricted use herbicides and rodenticides on limited production agricultural land where grain and hay are grown primarily for personal use. (No more than 10 percent of the grain and/or hay grown may be sold.) The licensee can use no other type of restricted use pesticide, including aquatic herbicides or insecticides, unless a traditionally licensed Private Applicator supervises.

During the pilot project, applicators with these licenses began to discover their inability to legally purchase and use certain pesticides. In fact, a compliance case, investigated in 2004, brought the matter to light. A Limited Private Applicator had illegally applied a restricted use herbicide to a grain crop because the license only allows the application of a restricted use herbicide on non-production ag land. WSDA also received calls from Rancher Private Applicators who wanted to buy and use restricted use insecticides on their orchards. The rancher license only allows the use of restricted use herbicides and rodenticides on non-production or limited production ag land. An orchard does not qualify as either.

To learn more about the licenses, read a review of the collaborative process that created them and an update geared to pesticide dealers, visit agr.wa.gov/PestFert/LicensingEd/LimitedandRancherPAL.htm, or contact Margaret Tucker at (360) 902-2015 or mtucker@agr.wa.gov.

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you must hold a license in the categories in which they apply. (See supervision article on page 4) It is common for individuals with a CO license to start their own application business. Unfortunately, their failure to switch to the CA license is also commonplace. Certainly, this type of license is more expensive and requires financial coverage. But, the CO license is not 'good enough' for that period of time it takes you to make the switch.

Our point is quite simple: If you are operating (own or manage) a pest control company without a CA license, you are operating in violation of pesticide law – period. For more information on CA licensing, go to *agr.wa.gov/PestFert/LicensingEd/CaSpiInfo.htm* or contact Pesticide Licensing toll free at (877) 301-4555.

ROLE OF GROWERS AND DEALERS IN FERTILIZER SECURITY

Fertilizers, then and now

Several years ago, mentioning of the word 'fertilizer' brought to mind lush lawns, dark green ball fields, and a garden bursting with fresh and abundant vegetables. If you have ever had the pleasure of living in an agricultural community, chances are you've heard old timers refer to the "good old days" before fertilizers were commonly used. Today, most growers cannot produce a crop without fertilizers. Whether synthetic or organic, fertilizer products help Washington growers to do their part to feed the world's population.

The theft of ammonia and threats associated with terrorist activities has led the fertilizer industry to promote heightened awareness and associated security measures.

In this day and age, the word 'fertilizer' brings much more to mind than green fields and prolific gardens. To those in law enforcement, homeland security, and even the agricultural industry, the term often conjures up two things: drugs and bombs. When talk does turn to fertilizers used in bombs or illegal drug manufacturing, the products of most concern are:

NH3 (82 percent nitrogen compressed gas);

Ammonia Nitrate (34 percent dry granular nitrogen); and

Urea (46 percent dry granular nitrogen).

For years, we have seen the TV reports about methamphetamine labs – how fertilizer is used to make this illegal drug in a process sometimes called the 'Nazi' method. It was the German army during WWII that developed this particular method of producing methamphetamine. Researchers produced the drug in hopes that it would keep soldiers fighting longer and with less food. This method requires NH3 to complete the process.

The fertilizer dealerships that use NH3 have specialized storage and application equipment specifically designed for this product. Theft of NH3 is common at storage facilities statewide. So, dealerships have increased security measures in an effort to limit unauthorized access to fertilizer. Some of the security measures include yard illumination, security cameras, lockable valves on all storage and application equipment; businesses also enlist the help of local townspeople, asking for their cooperation in reporting strange vehicles or activities near fertilizer facilities. These security measures are justified considering that a gallon of NH3 retails to farmers for roughly $1.45. That same gallon of NH3 sells to a meth lab for about $200.

NH3 is one of the most commonly used and cheapest forms of nitrogen available for cereal grain production today. It is used both as a crop nutrient, and a raw material in the production of other fertilizer products. NH3, only sold in bulk quantities, is solely available to production agriculture. However, Ammonium Nitrate and Urea, available bagged or bulk, are sold statewide. Some believe removing NH3 from the market would control the manufacturing of illegal drugs. But, in fact, eliminating NH3 would further devastate a financially strapped industry. The fertilizer industry has changed significantly the past few years. Higher nitrogen prices coupled with diesel fuel prices that rose above a $1 a gallon in the past year, and a wheat market down over a $1 per bushel means higher costs to the grower, and less gross profit for his crop. Thus, if the cheapest form of nitrogen were removed from the market, it would raise cost and lower gross profit to the grower.

The major nitrogen sources of dry fertilizer available on the market today are Ammonium Nitrate and Urea. Both Ammonium Nitrate and Urea commonly are used on everything from potatoes to corn to tree fruit. Urea was used to make the bomb that exploded in the February 26, 1993 attack on the World Trade Centers in New York. On April 19, 1995, terrorist Timothy McVeigh drove a rental truck into Oklahoma City and parked it in front of the Alfred P. Murrah Federal Building. The rental truck contained multiple drums; the drums contained a mixture of Ammonium Nitrate and fuel oil that ultimately caused the horrific explosion that took 168 lives, 19 of which were children.

Since these tragic incidents, some manufacturers in the United States have elected to not distribute Ammonium Nitrate. Others have limited their sales of the product to established customers only, in an effort to keep it out of the wrong hands. In an effort to track sales of NH3, Urea and Ammonium Nitrate some states have implemented a program requiring sellers to be licensed. On the international scene, Australia has removed Ammonium Nitrate entirely from in-country

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PICOL: An efficient way to search for pesticide information

*by **Jane M. Thomas** and*
***Catherine H. Daniels**, WSU*

Information on all pesticide products registered for use in Washington is available on-line through Washington State University's (WSU) PICOL label database. If you are wondering, PICOL – pronounced 'pickle' by locals – stands for Pesticide Information Center On-Line. Actually, PICOL is two databases. One houses information on pesticide tolerances for crops grown in the Pacific Northwest. The other database maintains label information on pesticides registered in Oregon and Washington.

Searches made easy

The label information in PICOL is searchable by any combination of crop, pest, product name, EPA number, intended user, ingredient, and/or registrant, just to name a few. The database is now menu driven, making it easier to formulate queries. For example, a two-step search will allow you to find those pesticide labels registered in Washington for use to control walnut husk fly on walnuts:

Crop EQ (equals) Walnut,
AND Pest = EQ Walnut Husk Fly

Even the more complicated searches are straightforward. For example, visitors to the site will find all products containing either organophosphates or carbamates labeled for homeowner use in three steps:

Ingredient LIKE carbamate;
OR Ingredient LIKE organophosphate;
AND Intended Users EQ = homeowner

The search possibilities are extensive and help to narrow the list of more than 12,000 Washington-registered labels to something more manageable.

Switching out the default

The database defaults to Washington label information. Radio buttons are available on the upper portion of the main search page to switch the search for Oregon pesticide information. The database also defaults to searching for products registered for the current year. There is some historic registration information available in PICOL. If the default for 'current year' does not yield results, select 'all years' and find out if that product is no longer registered.

Help is a phone call away

If you run into problems with PICOL, help is available. First, dictionaries located on the main search screen describe PICOL terms. Secondly, an on-line help screen is available. Links for both dictionaries and help screens may be found in the green band on the main search page. Finally, WSPRS staff make themselves available to answer PICOL-related questions, and provide phone tutorials.

Access the PICOL databases from the Washington State Pest Management Resource Service (WSPRS) Web page at http://wsprs.wsu.edu. Once on the WSPRS Web page, look for the red circle "PICOL Database" link and select it. On the next page, click on the Label Database link to access the pesticide label search page. While conducting your searches, remember help is a phone call away, and the WSPRS staff will gladly walk you through the steps. Call (509) 372-7492 for assistance.

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distribution.

The Oklahoma City and World Trade Center bombings as well as other terrorist activities did impact the price of fertilizer in the U.S. However, the primary reason for increasing fertilizer costs in this country is the law of supply and demand. Natural gas is a major component in NH3; the domestic market for NH3 is three to five times higher than the world market, and worldwide fertilizer stocks are low. Countries that at one time predominately exported fertilizer, now consume all product they produce; that reality has increased the demand in an already tight U.S. market. With the production of fertilizer failing to keep pace with demand, the price is bound to rise.

NH3, Urea and Ammonium Nitrate remain available to production agriculture while Urea and Ammonium Nitrate are available to homeowners. NH3 and Urea sales volume have increased slightly in past years. Nitrate sales, on the other hand, continue to decline. A majority of manufactures and distributors have chosen to reduce nitrate distribution because of liability concerns.

The fertilizer business, like every other business, is always changing, but one thing is for certain: the word 'fertilizer'' has a vastly different meaning in 2005 than it did in the recent past.

Becoming involved in the legislative and rulemaking process

*by **Leslie Emerick**, WSDA Legislative Coordinator and **George Huffman**, WSDA Rules Coordinator*

It is possible for Washington residents to influence laws and new legislation that directly affect their way of life, business, or industry. Interacting with lawmakers and policymakers at the state Legislature provides such an opportunity.

Do Your Homework

Before taking up an issue with legislative staff or a legislator, do your homework. Come to understand all aspects of an issue. Who does it affect? What views do stakeholder groups hold? How does this issue (embodied in law or legislation) influence future trends? Gather additional information, including statistics, supporting documents, lists of organizations in support of, or opposed to the matter. Thorough research will allow you to present your viewpoint with confidence and credibility. By combining factual information with personal experiences, you'll be more effective at delivering key messages.

Get to Know Your Legislators

To make a difference in the legislative process, you must develop a relationship with your legislators. Keep in mind that it is possible to work effectively with legislators and staff with diverse personal opinions. It's unlikely that you will agree on every issue with a legislator. But that reality should not preclude you from building a positive, long-term relationship.

To become better acquainted with your legislators, spend time with them when the Legislature is not in session. The Legislature convenes in regular session the second Monday in January. Members meet for 105 days in odd-numbered years (January through mid-April), and 60 days in even-numbered years (January through mid-March).

Arrange a meeting when he or she is home during the months between sessions. Your legislators are also your neighbors. You share many of the same interests and concerns. Make a strong effort to build on the common ground. Take the time to know legislators as people. You may contact legislators in a number of ways:

- **Personal visit.** Call the office, introduce yourself, tell the legislator or the legislative assistant what you would like to discuss, and make an appointment for a visit. Use the member rosters *www1.leg.wa.gov/Legislature/Rosters.htm* to find phone numbers. If you plan a visit, be prepared for your discussion. Compile a few talking points on paper, remember to be factual, and make comments as brief and specific as possible. If you do not know how to respond to a question or comment, admit that and offer to follow up with more information later. Your offer is an avenue toward further discussion.
- **Write a letter.** Express your views and request a member's attention through the mail. Make your letters brief, to the point, clear and formal. Include your mailing address and phone number so the legislator knows where to respond. Use the member rosters to find the mailing addresses *www1.leg.wa.gov/Legislature/Rosters.htm.*
- **Send an e-mail message.** Like letters, e-mails should be clear, concise, to the point, clear and formal. Include your name and mailing address, as well as your e-mail address. Let the legislator know how you prefer to be contacted. Address electronic correspondence to the member e-mail address *www.leg.wa.gov/email/members/Default.aspx?Chamber=H.*
- **Call the toll-free legislative hotline.** You can call the toll-free hotline at 1.800.562.6000 to leave a message on any topic or issue.

Get to Know Legislative Staff

Legislators rely heavily on professional staff for information gathering and analysis. You can play an equally supportive role by making staff aware of your perspective, personal knowledge and experience. Know that legislative staff contend with an incredible volume and variety of issues, and are expected to be well-versed in all. Staff always appreciates new sources of clear and accurate information. In turn, they usually are willing to return the favor.

Network with Other Citizens

Much of the information you need to be effective in the legislative process can be obtained from other concerned and active citizens. Most interest areas are represented by informal citizen groups, if not formal membership organizations. Find out whether there are groups that share your concerns and establish a network. A group of concerned citizens often is more effective working together, than individuals trying to accomplish the same goal separately.

Key Points to Remember

Regardless of how frequently you contact your legislator(s), you will be that much more effective by keeping the tips below in mind:

- *be well prepared for your discussions;*
- *provide a written statement with your verbal (in-person) presentations;*
- *make letters and e-mail formal, specific and concise; and*
- *refrain from berating or arguing with a legislator when you disagree. Simply thank the member for his or her time, and express a desire for further discussion.*

FAQ: Understanding the difference between a state rule and statute

What is a statute?

A statute is a law enacted by the Legislature and codified in the Revised Code of Washington (RCW). Washington state statutes cover a wide range of subjects. Certain statutes relate specifically to agriculture and give the WSDA the "statutory authority" to enact rules on agricultural subjects.

For example, chapter 15.58 RCW (Washington Pesticide Control Act) regulates the formulation, distribution, storage, transportation, and disposal of any pesticide and the dissemination of accurate scientific information as to the proper use, or nonuse, of any pesticide. The Legislature enacted the law because it was "important and vital to the maintenance of a high level of public health and welfare both immediate and future."

Section 15.58.040 links the law enacted by the Legislature to rules adopted by the WSDA by stating, "the (WSDA) director is authorized to adopt appropriate rules for carrying out the purpose and provisions of this chapter."

George Huffman, WSDA Rules Coordinator, and Ted Maxwell, Registration Services Program Manager, prepare to collect public testimony at a hearing to consider a proposed rule.

What is a rule?

A rule is a regulation adopted by the Washington State Department of Agriculture and codified in the Washington Administrative Code (WAC). The words "rule", "standard", "regulation", and "WAC" are often used interchangeably. WSDA rules cover a wide range of subjects.

For example, WSDA rules regulate the use of pesticides, promote animal health and food safety, and establish standards that support a viable organic farming industry in Washington state. Rules help generate revenues that, in turn, allow the department to offer a variety of inspection and other services. These rules serve the people of Washington state by supporting the agricultural community and promoting consumer and environmental protection.

What is the difference between a 'rule' and a 'statute'?

The following table briefly illustrates the difference between a rule and a statute:

Rules:	Statutes:
· Adopted by administrative agency such as WSDA	· Enacted by the Legislature. Only the Legislature can enact statutes
· Administrative laws	· Legislative laws
· Alterable by an agency year round	· Only enacted when the legislature is in session
· Implement statutes and cannot contradict them	· Authorize rules (statutory authority)
· Adopted according to the provisions of the Administrative Procedure Act (chapter 34.05 RCW)	· Enacted according to the rules of the Legislature

What does "rule making" mean?

"Rule making" means the process WSDA follows to develop, adopt, repeal or amend a rule.

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Can I participate in the WSDA rule making process?

Chapter 34.05 RCW, the Administrative Procedure Act, acknowledges several ways in which the public can participate in the WSDA rule making process:

This statute section:	Gives you the right to:
RCW 34.05.310 Prenotice inquiry	· Comment on the subject of possible rule making; · Know the process that WSDA will follow to develop a rule; · Know specifically how you can effectively participate in the decision to adopt, amend or repeal a rule; and · Receive at least a summary of the department's prenotice inquiry information, if you request it.
RCW 34.05.314 Rules development agenda	· Receive a copy of WSDA's semiannual rule development agenda within three days of its publication in the Washington State Register, if you request it.
RCW 34.05.320 Notice of proposed rule	· Receive, within three days after its publication in the Washington State Register, a copy of the notice of proposed rule adoption, or summary of that contained on the notice, if you request it.
RCW 34.05.325 Public participation	· Submit written comments, including supporting data, on a rule proposed by the WSDA; and · Participate in a public rule making hearing on a rule proposed by the WSDA.
RCW 34.05.325 Concise explanatory statement	· Receive a copy of the concise explanatory statement, if you request it. Statement summarizes comments the department received on a proposed rule and gives WSDA's response to comments.
RCW 34.05.330 Petition for adoption, amendment, repeal	· Petition WSDA requesting the adoption, amendment, or repeal of any rule.

How can I get information on WSDA's rulemaking process and rulemaking activity?

There are several ways you can get information about WSDA rule making, which will enable you to participate in the rule making process, if you choose. The best way to get quick, concise and useful information is to consult the WSDA "Laws and Rules" Web page at *http://agr.wa.gov*. Here, you will find information about:

- Current rule making activity including copies of proposed and recently adopted rules;
- Upcoming public hearings including their date, time and location;
- The WSDA rule making process and how you can participate in it; and
- Who to contact if you want additional information.

For pesticide, fertilizer and feed related issues, the Pesticide Management Division maintains a database of over 200 individuals who have requested notification of rule changes. Each time the division files a rulemaking petition, a copy is mailed to the stakeholder list. Copies of these documents may also be found on the previously mentioned agency Web site. To be added to the notification list contact, Laurie Mauerman at lmauerman@agr.wa.gov.

Learning more about the Legislative Process

Take advantage of these resources to become schooled in the legislative process.

Find Your Legislator
www.leg.wa.gov/DistrictFinder/Default.aspx

Glossary of Legislative Terms
www1.leg.wa.gov/Workingwith-Leg/Glossary.htm

House/Senate Member Rosters
www.leg.wa.gov/rosters/

How Bill Becomes Law
www1.leg.wa.gov/Workingwith-Leg/bill2law.htm

How to Read a Bill:
www.leg.wa.gov/common/backtoschool/images/howtoread.pdf

How to Testify in Committee
www1.leg.wa.gov/Workingwith-Leg/testify.htm

Bill Information
www.leg.wa.gov/wsladm/billinfo1/bills.cfm

Always deliver pesticides to safe and secure enclosures

It has always been important for pesticide dealers to deliver pesticides to customers in a safe and legal manner. Our present climate of increased security makes it more important than ever to follow the rules. Deliveries need to be made directly to the pesticide consignee or their authorized agent. Otherwise, deliveries must be placed in a storage facility that is consistent with the requirements in WAC 16-228-1200 of the General Pesticide Rules.

These rules set the requirements for storage of unattended pesticides and their containers, unless the containers have been triple-rinsed. The storage requirements vary depending on the signal word of the pesticide(s) to be stored.* Pesticides with the signal words of "Danger," "Warning" or "Caution" must be stored in secured storage out of the reach of children in an acceptable enclosure.

Pesticides that display the signal words of 'Danger/Poison' must be stored in an acceptable, locked and posted enclosure (see right). The enclosure must be adequate to prevent children, unauthorized persons, livestock, or other animals from gaining entry. More stringent storage requirements apply to some rodent bait. The storage area warning signs for products labeled 'Danger/Poison' must show the skull and crossbones symbol; the words 'Danger/Poison' (or Pesticide/Chemical) Storage Area/Keep Out" must appear in letters large enough to be legible from 30 feet away. For a detailed description and diagram of storage sign placement, go to the storage section in the pesticide law handout booklet at *http://agr.wa.gov/PestFert/Pesticides/docs/PesticLawsBooklet.pdf*.

Acceptable enclosures for all signal words

- Closed vehicle or trailer
- Building, room or fenced area with a fence at least six feet high
- Foot locker or other container that can be locked
- Unattended trucks or trailers that have solid side racks and secured tailgate at least six feet above ground, ramp or platform level
- Bulk storage containers, fifty gallons and larger, with tight screw-type bungs and/or secured or locked valves.

Acceptable enclosures for Danger, Warning or Caution labeled pesticides

- Metal containers, 28 gallons and larger, with tight screw-type bungs and/or secured locked valves
- Sealed five-gallon containers (requiring a tool to unseal).

Although it is best to work with a customer to deliver pesticides when the person is at the farm or place of business, busy schedules often make this impossible. Do the next best thing. Work with customers to ensure that you leave pesticides in a secured, and if necessary, posted storage area.

To request copies of the rules referenced, contact WSDA toll free, (877) 301-4555 or visit *http://agr.wa.gov/PestFert/Pesticides/LawsRules.htm*.

**The department also has rules relating to the storage of bulk pesticides (Chapter 16-229 WAC). These rules define bulk pesticides as registered pesticides transported or held in individual containers and undivided quantities that exceed 55 U.S. gallons or 100 pounds. Storage of product greater than 500 gallons liquid or 2,000 pounds of dry "bulk" pesticide triggers the Secondary Containment rules.*

Q *While this storage area is more than sufficient for pesticides with signal words of Caution, Warning and Danger, can you figure out why Danger/Poison labeled pesticides could not legally be stored here?*

A While the facility itself meets the requirement for storage of Danger/Poison labeled pesticides, the sign does not. While almost complete, the sign is missing "Keep Out."

EPA Funds PesticideNotes

The EPA's Region 10 office in Seattle has recognized the value of PesticideNotes by once again providing funding for its development and distribution. We gratefully acknowledge this support. WSDA and EPA join in hoping that this publication provides you with valuable information.

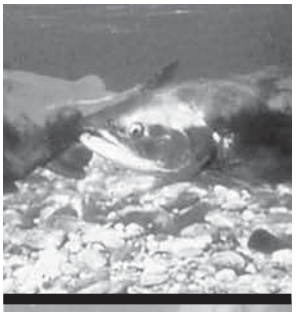
Rule change exempts Kaolin from containment requirement

In March, WSDA adopted a rule change, exempting growers and other applicators from building costly – and unnecessary – operational containment areas when using Kaolin clay pesticides.

More than ten years ago, the rules on secondary and 'operational area containment' went into effect. In that time, several pesticides containing kaolin clay have been registered, and the use of these products has become widespread, particularly on pears. In fact, growers use kaolin clay pesticides at high rates per acre. As a result of the high rates, threshold values for permanent/mixing loading sites were triggered. Until recently whenever such pesticides triggered the threshold values, the (old) rule required mixing /loading activities to take place in operational containment areas. (See WAC 16-229-400 for details.)

For more information, contact Cliff Weed at (360) 902-2036 or cweed@agr.wa.gov.

Following public hearings in February, and after considering the Environmental Protection Agency's (EPA) determination, WSDA decided to exempt Kaolin clay from these rules. EPA has concluded that pesticides containing kaolin clay are neither harmful to non-target organisms nor to the environment.



The Endangered Species Program needs you

"It is so important to our farmers and others that EPA use realistic data when making pesticide risk evaluations."

Bridget Moran, *WSDA, Endangered Species Manager*

WSDA's Endangered Species Program is counting on the continued cooperation of applicators, consultants and manufacturer representatives to provide precise, local pesticide application information to the program. Gathering data about how pesticides are used in Washington is an important component in ensuring that pesticide products remain available to growers and others in the fields of agriculture and landscaping.

Under the Endangered Species Act (ESA), both EPA and NOAA Fisheries must evaluate the effects of pesticides on endangered species. The state-specific data collected by the program provides these agencies with information that reflects typical pesticide use in Washington rather than estimates that may not reflect real world practices.

"We want to ensure that, if required by EPA or NOAA Fisheries, pesticide use mitigation – as it relates to salmon protections – is both practical to carry out and protective of threatened and endangered species," said Bridget Moran, WSDA's endangered species program manager. "But the information WSDA provides EPA and NOAA Fisheries is only as good as what we can obtain."

The department's Endangered Species Program began in 2001. The program collaborates with growers, landscape applicators and other pesticide-use experts to compile technical information about application practices statewide. The program ensures that this specific data is used to refine assessments pertaining to pesticide exposure for threatened and endangered salmon species.

Washington state-initiated plan

In March, WSDA submitted the state-initiated plan, Washington State Endangered Species Protection Plan for Pesticide Use for EPA approval. The state-initiated plan formalizes the agreement between WSDA and EPA to use Washington-specific data to make ecological risk assessments and/or determinations related to the ESA.

"Accurate, local pesticide application data can only benefit Washington growers," said Moran. "The Endangered Species Program would like to thank everyone who helped us collect the best available information about pesticide use in Washington. It is so important to our farmers and others that EPA uses realistic data when making pesticide risk evaluations."

Before the EPA signs off on the plan, the agency must be assured that the initiative is, at a minimum, as protective as its proposed national strategy for endangered species protection. WSDA anticipates that EPA will approve the state-initiated plan.

For more information regarding the state-initiated plan and other Endangered Species Program activities visit *http://agr.wa.gov/PestFert/EnvResources/EndangSpecies.htm*.

Proposed rule would require notification prior to pesticide application

The state Department of Agriculture (WSDA) is considering an addition to the General Pesticide rules. If adopted, the rule will require people applying pesticides labeled Danger/Poison to notify adjacent facilities before an application takes place. Under the proposed rule, schools, hospitals, nursing homes and adult and child day care centers must be notified.

This rule may affect pesticides applied using certain application methods. Applicators must notify adjacent facilities at least two days before an application. Pesticides applied within a structure would not be included in this proposed rule. The proposed rule is the result of several public requests for additional constraints on pesticide use near those facilities that house children or people that may have health problems. A temporary advisory committee was set up consisting of growers, applicators, environmental representatives and health and school representatives. Several meetings and general discussions gave rise to the rule as one possibility to address public concerns related to pesticide drift.

Comments on this proposal are welcome. To obtain a copy of the full wording or copies of the meeting minutes, please refer to the WSDA Web site *http://agr.wa.gov/PestFert/Pesticides/Airblast_Sprayer.htm*. Alternately, contact Ann Wick at (360) 902-2051 or awick@agr.wa.gov. When this publication went to print, WSDA had scheduled late summer, statewide hearings on the final proposal. As the rule process unfolds, check the Web site or call the department to learn the latest information.

STATUS OF BOVINE SPONGIFORM ENCEPHALOPATHY IN NORTH AMERICA

Follow precautions to avoid further cases of Mad Cow disease

As of June 2005, the U. S. Department of Agriculture (USDA) has tested over 400,000 cattle nationwide for Bovine Spongiform Encephalopathy or BSE with two cows reported positive for what is commonly called 'Mad Cow' disease.

In North America, a total of six cows have been diagnosed with BSE. The first case occurred in a Canadian cow imported from the United Kingdom and diagnosed in 1993; officials discovered the second case in May 2003 (an indigenous cow in Canada). A third case came to the public's attention in December 2003; an infected cow had been imported from Canada into Washington state. In January of this year, two cases were diagnosed in Canada. The most recent report of a confirmed positive case was announced on June 24th, from a sample taken from a cow in November 2004 in the United States and currently under epidemiological investigation. USDA has confirmed that the cow was blocked from entering the food or feed supply.

The only well-documented route of transmission of BSE in cattle is feeding of infected materials from diseased animals. A recent Harvard risk assessment concluded that very few additional animals would get sick, and the disease would eventually die out in the U.S., if current control measures were followed. To achieve that outcome, it is important that everyone involved in beef and dairy cattle production - from the feed manufacturer to the feed transporter to the person feeding the animal - do their part to ensure the measures are followed.

A crucial measure for the control of this degenerative, fatal disease is compliance with the federal feed regulation. It prohibits feeding of certain mammalian protein to cattle and other ruminants. It's illegal to feed the following materials to cattle and other ruminants (such as sheep, goat, buffalo, antelope, elk and deer):

- Animal digestive organs, animal liver, animal by-product meal, glandular meal, extracted glandular meal, fleshings hydrolysate;
- Meat, meat by-products, meat protein isolate, meat meal, meat meal tankage, dried meat solubles;
- Meat and bone meal, meat and bone meal tankage, cooked bone meal;
- Steamed bone meal, cooked bone marrow, mechanically separated bone marrow; and
- Hydrolyzed hair, hydrolyzed leather meal, stock, broth, unborn calf carcasses, food processing waste, restaurant food waste.

The following steps should be taken to ensure that misfeeding does not occur:

Read the label. All commercial feed containing prohibited material (except pet food) must contain the statement Do not feed to cattle and other ruminants. **Avoid pet food.** Do not feed pet food to cattle or other ruminants. Many pet foods contain prohibited material and are not required to have the above statement on the label. **Consult with suppliers.** Talk with your feed supplier to ensure the feed you purchase does not contain prohibited material.

Based on information gathered by the WSDA Feed Program, none of the commercial feed mills making ruminant feed in the state of Washington use prohibited materials in the production of any feed that is produced (ruminant or otherwise).

For more information on mad cow disease, visit the following Web sites:

USDA's BSE testing program: http://www.aphis.usda.gov/lpa/issues/bse_testing/faq.html

BSE findings in North American: http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/bseesbindexe.shtml

FDA regulations guidance documents may be accessed at: http://www.fda.gov/cvm/index/bse/bse_guidance.htm.

Future Precautionary Measures: In addition to current BSE regulations and prohibited material, the Food and Drug Administration is considering comment on further precautionary measures such as removing "specified risk material" from all feed. Specified risk material may include items such as the brain, skull, eyes, and spinal cord of cattle 30 months of age and older, plus a portion of the small intestine and tonsils from cattle of all ages. To learn more visit the FDA site at http://www.fda.gov/cber/bse/bse.htm

South Kitsap schools recognized for pest management excellence

In March, WSDA pesticide management staff presented the South Kitsap School Board in Port Orchard with a STAR Certification award. From left to right: Dan Suomi, PCO Specialist, WSDA; Carrie Foss, IPM Coordinator, WSU; Board President Jim Huff, Facilities Director Tom O'Brien, Deborah Anderson, Don Fike, Mike Riley all with the South Kitsap School District.

So, how does a school district get selected to serve as the role model for pest management?

It helps to have an administration that is committed to conducting least-toxic pest control measures on school campuses. This type of leadership has made South Kitsap School District a model and only the second recipient in the western United States of the IPM, or Integrated Pest Management, STAR Certification. This award, originated by Dr. Thomas A. Green with the IPM Institute of North America, was presented to the South Kitsap School Board at a March 7, 2005 ceremony.

The IPM program has its beginnings with Jim Beveridge, former grounds department manager. In the past few years, Mike Riley, the current grounds and maintenance department manager, has been the sparkplug for getting the program off the ground. Riley, now the IPM coordinator dealing with day-to-day execution of the program, explains, "Our priority has always been to keep pesticides away from kids."

During the last six years, Eden Advanced Pest Technologies has provided services to the district and helped rid schools of the occasional mouse as well as carpenter ants and termites. The district manages other pests on school grounds – primarily weeds and stinging insects – with in-house staff, and contractors as needed.

"Head custodians will call me if there is a problem," Riley says. "If the problem isn't urgent, they'll enter the request into our electronic work order system. By evaluating pest problems as they come up, we decide if it's something we can handle ourselves, or if funds need to be spent to bring in an outside contractor."

Cost is not the only factor that limits pesticide applications at South Kitsap. Washington state law now requires school districts to contact parents who want to be notified prior to the application of a pesticide. South Kitsap goes above and beyond the requirement, notifying all parents and staff.

"We feel that the risk involved in missing someone who wanted to be notified isn't worth it – so we notify everyone," says Tom O'Brien, facilities director.

To read the complete story, visit the PesticideNotes Extra! at agr.wa.gov/PestFert/Publications/Newsletter/2005.htm

Read the Label: Avoid pesticide illness, injury or penalty

How often have you heard yourself or a co-worker say, "If only I had taken the time to read the label, I would have applied the product safely and avoided an injury?" Or, "If I had spent five minutes reviewing the label, I could have avoided the penalty for failure to follow the label." Such lamenting probably has been heard or expressed more often than we care to remember.

Now, more than ever, it's important to Read the Label before using a pesticide in order to avoid injury and penalty. Pesticide labels are legal documents. If you rely only upon your memory when applying a pesticide (previously used), then later you may confront the most common violation of pesticide law in Washington – use of a pesticide inconsistent with the label.

According to a 1999 EPA report, Consumer Labeling Initiative Phase II, consumers generally do not read environmental information, storage and disposal information on product labels for outdoor pesticides, household cleaners, and indoor insecticides. The stakeholders from this study felt that consumers need additional motivation to read and follow product labels.

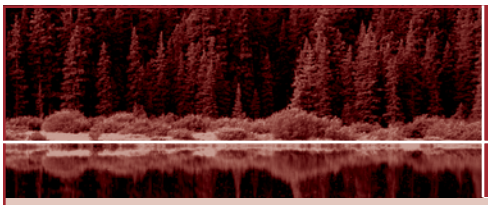
To read the complete story, visit the PesticideNotes Extra! at agr.wa.gov/PestFert/Publications/Newsletter/2005.htm.

New pest and disease web site is a 'one-stop shop' for growers

Growers, if you are in search of one-stop shop on berry pests and ways to manage various critters and infestations, look no further than Tom and Anna Peerbolt's Web site. Not quite a year old, www.nwipm.info is both a practical field guide and resource for integrated pest management.

The site features an extensive database on berry pests, including a search engine for insects and diseases. Visitors to the site will find newsletters, on-line pest manuals, pest management strategic plans, processors, and propagators. A photo search and expanded calendar of events is also available. The information at www.nwipm.info draws from multiple sources beyond the Peerbolts' knowledge and experience. All sources of information are credited, and, whenever possible, the Peerbolts link to original Web sites.

To read the first-person column by Tom and Anna Peerbolt, describing how they developed the one-stop shop resource, visit the PesticideNotes Extra! at agr.wa.gov/PestFert/Publications/Newsletter/2005.htm



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OREGON Department of Agriculture (503) 986-4635 • IDAHO Department of Agriculture (208) 332-8500

NO REASON NOT TO RECYCLE OR DISPOSE SAFELY OF PESTICIDES

Take advantage of disposal services

While it is true that pesticides have a fairly long shelf life, at some point these products go from being a workplace asset to a potentially liability. If several years have passed since you last used a product, consider proper disposal or recycling before the pesticide becomes a financial liability and a possible threat to human, animal and environmental safety. If the product is legally usable, find someone (or a company) who has a need for the pesticide. Otherwise, contact one of the organizations below to learn of options for proper recycling and/or disposal.

The Waste Pesticide Program provides free disposal of unwanted agricultural and commercial grade pesticides.

Earth 911. Anywhere in the United States, Earth 911 provides an easy way to find local recycling contacts and disposal opportunities for household hazardous wastes, such as home and garden pesticides, motor oil, antifreeze and paint. Their Web site, *www.earth911.org*, provides resource information as does the toll-free hotline, 1-800-Cleanup (1-800- 253-2687). At the Web site, enter the pertinent zip code and follow instructions to find recycling and disposal information in your area. The Earth911 Web site is faster and more comprehensive than the telephone service. It is anticipated that by the end of 2005, Earth911 will be providing businesses with information on how to dispose of agricultural and commercial pesticide products, and recycle empty containers.

Agricultural & Commercial Pesticide Disposal. WSDA operates the Waste Pesticide Program. It provides free disposal of unwanted agricultural and commercial grade pesticides located in Washington. Free, on-site customer assistance is available. Staff works with you to determine what products are no longer usable; they also help package decaying containers in preparation for disposal. If you need disposal assistance, contact WSDA toll-free, 1-877-301-4555 or by e-mail, wastepesticide@agr.wa.gov. To find more information and schedules of upcoming disposal events in the region, visit *agr.wa.gov/pestfert/pesticides/wastepesticide.htm*. Idaho and Oregon also provide pesticide disposal options. In Idaho, contact the state Department of Agriculture, (208) 465-8442. In Oregon, contact the Department of Environmental Quality, (503) 229-5913.

Recycling of Plastic Pesticide Containers. Northwest Ag Plastics, Inc. operates a free recycling program for empty, clean plastic pesticide containers. The program is run in cooperation with the Far West Agribusiness Association and the Agricultural Container Recycling Council. The recycling event schedule is available, *www.nwagplastics.com* or call (509) 952-7146. (Be advised that the open burning of plastic pesticide containers is prohibited in the Pacific Northwest and in most places in the United States.)

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